INTERTEK MOODY MARINE

5th October 2012

Ref: 82022-SP

American Albacore Fishing Association
South Pacific Albacore Troll/Jig Fishery

PUBLIC CONSULTATION DRAFT REPORT

Dr. Norman Bartoo, Dr. Rob Blyth-Skyrme, Dr. Mike Laurs

Fishery Client:
American Albacore Fishing Association
4364 Bonita Road #311
Bonita
CA 91902
USA

Conformity Assessment Body:
Intertek Moody Marine
99 Wyse Road
Dartmouth
Nova Scotia
Canada
B3A 4S5

Contents

List of Figures

List of Tables

Glossary

AAFA	American Albacore Fishing Association
BCTFA	British Columbia Tuna Fishermen's Association
CHMSF	Canadian Highly Migratory Species Foundation
CPS	Coastal pelagic species
CR	MSC Certification Requirements V.1.2
EEZ	Exclusive economic zone
ETP	Endangered, threatened or protected (species)
FMP	Fishery Management Plan
HMS	Highly migratory species
IATTC	Inter-American Tropical Tuna Commission
IMM	Intertek Moody Marine
ISSF	International Seafood Sustainability Foundation
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSC	Marine Stewardship Council
NMFS	National Marine Fisheries Service
NZ	New Zealand
PFMC	Pacific Fisheries Management Council
PI	Performance indicator
PSA	Productivity-susceptibility analysis
RBF	Risk-based framework
SAFE	Stock assessment and fishery evaluation (report)
SG	Scoring guidepost
SI	Scoring issue
SICA	Scale-intensity-consequence analysis
STCZ	Subtropical Convergence Zone
SWFSC	Southwest Fisheries Science Center
UoC	Unit of certification
US	United States of America
WCPFC	Western and Central Pacific Fisheries Commission
WCPO	Western and Central Pacific Ocean
WFOA	Western Fishboat Owners Association
WWF	World Wildlife Fund

1 Executive Summary

This report sets out the results of the reassessment of the American Albacore Fishing Association (AAFA) South Pacific albacore tuna (*Thunnus alalunga*) troll/jig fishery against the Marine Stewardship Council (MSC) Principles and Criteria for Sustainable Fishing. The fishery was previously certified as sustainable in August 2007.

This version of the assessment report is the Public Consultation Draft Report, such that changes may yet be made to the report after the stakeholder review. Following the Final Determination stage, the fishery will be certified if no objections are raised by stakeholders to its certification.

The assessment of the fishery was undertaken by Dr. Norman Bartoo, Dr. Rob Blyth-Skyrme and Dr. Mike Laurs, who covered Principle 1 (target stock), Principle 2 (environment) and Principle 3 (management) components of the MSC Standard respectively. A site visit to San Diego, California, was undertaken in October 2011 to meet with scientists, fishery managers and stakeholders, as well as representatives of AAFA. No stakeholders chose to meet with the team during the site visit, although some initial, written stakeholder submissions were received, included in this report as Appendix 7 (from the World Wildlife Fund- WWF) and Appendix 8 (from the International Seafood Sustainability Foundation- ISSF).

Albacore is a highly migratory species (HMS), and the South Pacific stock ranges across much of the South Pacific Ocean between about 10^0 S and 50^0 S. Albacore mature by the relatively early age of approximately 6 years and have a moderate lifespan to about 10 to 12 years. The species is highly fecund with up to about 2.6 million eggs per spawning. Growth rates are moderate, with fork lengths at first birthday nearly 40 cm and at sexual maturity at age 6 approximately 90 cm or somewhat less.

Albacore, like other tunas, have a number of physiological and morphological specializations that adapt them to a fast, continuous swimming lifestyle in the pelagic open ocean environment. Their metabolic rates are 2 to 10 times higher than most other bony fishes, and they have very large eyes for detecting prey and specialized fins and body form to reduce drag. Albacore are generally considered inherently resilient to fishing pressure because they have a high rate of intrinsic increase, mature at an early age, are highly fecund, are not long-lived, have a broad distributional range, and do not exhibit any characteristics that increase the ease or population consequences of capture, such as aggregating for spawning or exhibiting sequential hermaphroditism (Marsh, 2010).

The most recent stock assessment, completed in 2011 for fishery data through 2009, estimated that the total stock biomass of South Pacific albacore was 762,240 t for the 2007-2009 period, while the spawning stock biomass was nearly twice the adult stock biomass associated with MSY at 234,537 t (Hoyle 2011).

The AAFA South Pacific albacore fishery is conducted in offshore waters far to the east of New Zealand. AAFA vessels use troll/jig gear. This gear is inherently highly selective, with no seabed contact and very low levels of retained or bycatch species.

South Pacific albacore occur in waters under the jurisdiction of both the Inter-American Tropical Tuna Commission (IATTC) and the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC). When operating in international waters, US HMS fisheries are managed by the Pacific Fishery Management Council (PFMC) and the Western Pacific Fishery Management Council (WPFMC), coordinated by the US

National Marine Fisheries Service. US fishery statistics are collected from all points of landing, and from mandatory logbook records.

The AAFA South Pacific albacore fishery achieved overall scores of 81.9 for Principle 1, 92.7 for Principle 2, and 92.9 for Principle 3. As such, it is recommended that the fishery is certified according to the MSC standard as being sustainable.

Two conditions of certification were placed on the fishery, however, for Performance Indicators (PIs) 1.1.2 and 1.2.2; these require the following outcomes to be achieved:

For PI 1.1.2

The client is required to demonstrate by the 4th annual audit that:

- The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity.
- The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome.

For PI 1.2.2

The client is required to demonstrate by the 4th annual audit that:

- Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.
- The selection of the harvest control rules takes into account the main uncertainties.
- Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.

A single non-binding recommendation was also made. This was that it would be good practice for AAFA members to be provided with and to follow the guidance for seabird handling, as required by longline vessels, in the very rare event that a seabird was taken aboard an AAFA vessel.

2 Authorship and Peer Reviewers

2.1 Assessment Team

This assessment and report was produced by Dr. Norm Bartoo, Dr. Rob Blyth-Skyrme, and Dr. Mike Laurs; these team members led the Principle 1 (Stock), Principle 2 (Environment) and Principle 3 (Management) elements of the assessment respectively. Dr. Blyth-Skyrme is also the lead assessor for the assessment. A brief summary of their experience and qualifications is included below.

Dr. Norm Bartoo.

Dr. Norman Bartoo received a BS in Fisheries Management and Administration in 1970, a Masters in Fisheries Statistics in 1972, and a PhD in Fisheries Population Biology in 1977 from the University of Washington. From 1977 through 2009, Dr. Bartoo was employed by the US National Marine Fisheries Service (NMFS) Southwest Fisheries Science Center (SWFSC). There he conducted stock and fishery assessments on tunas, billfish, sharks and other highly migratory species in the Pacific and Atlantic Oceans. Dr. Bartoo directed research and stock assessments of coastal pelagic species, marine mammal stocks, Antarctic species and others. Dr. Bartoo served as a US science delegate and advisor to numerous international science bodies and forums and has extensive experience on both international and domestic scientific committees and workshops, including the Pacific Fishery Management Council. Dr. Bartoo retired from the NMFS in 2009 as the Regional Science Director, managing all research and done by the SWFSC's 3 laboratories and 4 Divisions. He has also served as the Scientific Editor of the US Fishery Bulletin and the National Oceanic and Atmospheric Administration's (NOAA's) Professional Paper series (2002-2005), and was on the Editorial Board of Ciencias Marinas. Dr. Bartoo has authored or co-authored over 60 publications and numerous technical reports.

Dr. Rob Blyth-Skyrme.

Dr. Rob Blyth-Skyrme received a BSc in Marine Biology from the University of Liverpool, a MSc in Aquaculture from the University of Stirling, and a PhD in Fisheries Management from the University of Wales, Bangor. He has worked in marine fisheries science, management and policy for more than 10 years. Prior to becoming a fisheries consultant, Dr. Blyth-Skyrme was the Deputy Chief Officer for Eastern Sea Fisheries Joint Committee, the largest inshore fisheries management organization in England. He then became a senior advisor to the UK Government on marine fisheries and environmental issues, leading a team dealing with fisheries policy, science and nationally significant fisheries and environmental casework. He has extensive experience of running and providing lead input to workshops and management fora at a national level, and has published a number of papers in peer-reviewed international journals. Dr. Blyth-Skyrme now runs Ichthys Marine Ecological Consulting, a marine fisheries and environmental consultancy with offices in the UK and Hawaii, and has undertaken all facets of MSC work as a lead assessor and expert team member.

Dr. Mike Laurs.

Dr. Michael Laurs is currently a part time marine fisheries consultant. Previously, he led a Federal fisheries research laboratory multi-disciplinary research program, as well as an operational fishery forecasting program, for albacore tuna for a little over 20 years. The research included a broad range of topics and much of it was closely coordinated with the US albacore fishing industry. Dr. Laurs conducted fishery development research that resulted in the US surface albacore fishery expansion to the central and western North Pacific and the South Pacific. He also worked closely with the west

coast states and Canada to develop a uniform albacore fishery logbook system and a coordinated market sampling system to obtain length frequency and related fishery data in ports where albacore were landed. Much of the biological research, including albacore genetics, physiology, and general biology was conducted with academic partners that he recruited. He established a notably successful albacore tagging program that resulted in a unique, valuable database of 30,000 albacore used in age-and-growth, stock structure, migration, and ecological research on the species. The albacore oceanography research, which was a notably strong part of the program, resulted in greatly improved understanding of albacore habitat and the roles that environmental variability plays in causing variations in where, when, and how many albacore may be available and vulnerable to the surface fishery. He also pioneered the application of satellite remote sensing technology in albacore ecological research.

It should be noted that the risk-based framework (RBF) was not used in this assessment, and so no team members were required to have undertaken training in the RBF.

2.2 Peer Reviewers

Information on Peer Reviewers will be provided in due course, after the client has inspected the Client Draft Report, and drafted and agreed an Action Plan to address the Conditions of Certification identified during the assessment process.

Peer Reviewer 1: Robert Gillett.

Robert Gillett has been involved in tuna fisheries and their development/management over the last 30 years. This has included three years aboard a pole-and-line vessel, over 100 reports and publications on tuna fisheries, and work across the Pacific and Indian Oceans. Mr. Gillett's clients for the tuna work have included the United Nations Development Programme, Secretariat of the Pacific Community, Forum Fisheries Agency, Food and Agriculture Organization of the United Nations, the World Bank, International Finance Corporation, the Australian Agency for International Development, the Nature Conservancy, Pacific Islands Forum Secretariat, the Asian Development Bank, University of Hawaii, US National Oceanic and Atmospheric Administration, European Union, Commonwealth Secretariat, the Western and Central Pacific Fisheries Commission, the Worldwide Fund for Nature, the International Sustainable Seafood Foundation, and the Indian Ocean Tuna Commission. He has an extensive publication list focused on tuna fisheries, and was a peer reviewer for the New Zealand albacore tuna troll fishery assessment.

Peer Reviewer 2: Kevin McLoughlin

Kevin McLoughlin is a specialist fisheries consultant who previously worked with the Bureau of Rural Sciences as a Senior Fisheries Scientist engaged in a wide range of international and domestic fisheries issues with close links to Government policy. Mr. McLoughlin's responsibilities included production of BRS Fishery Status Reports—these have had a major influence on the direction of Australia's fisheries management and policy. His responsibilities have required a high level of interaction with policy and industry clients, and with international organisations. An important aspect of his work has been to be able to translate complex fisheries information to a range of audiences. Mr. McLoughlin was also a peer reviewer for the New Zealand albacore tuna troll fishery assessment and is a member of the team conducting surveillance audits of that fishery.

3 Description of the Fishery

3.1 Unit of Certification and scope of certification sought

The MSC Guidance to the MSC Certification Requirements (MSC 2011) specifies that the Unit of Certification as:

"*The fishery or fish stock (= biologically distinct unit) combined with the fishing method/gear and practice (= vessel(s) pursuing that stock.*"

The fishery proposed for certification is therefore defined as:

Species:	Albacore tuna (*Thunnus alalunga*).
Geographical Area:	South Pacific. It is recognised that this fishery represents a small proportion of the total fishing pressure on this stock. As a consequence, the status of the South Pacific stock as a whole is assessed, together with fishing practices and consequences within the AAFA troll/jig fleet only**.**
Method of Capture:	Troll (Jig). AAFA vessels targeting albacore in the South Pacific troll fishery for albacore; this method is described fully in Section 3.2 of this report. Throughout this assessment document, the fishery will be referred to as the AAFA South Pacific albacore troll fishery.
Management System:	South Pacific albacore occur within the jurisdictions of both the Inter-American Tropical Tuna Commission (IATTC) and the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (WCPFC).
Client Group:	American Albacore Fishing Association (AAFA) member vessels and vessels recognised by AAFA. Any vessels joining the Unit of Certification must recognise any requirements of MSC certification applied to AAFA vessels.

3.1.1 Scope of Assessment in Relation to Enhanced Fisheries

The albacore stock targeted in the South Pacific albacore fishery is not enhanced and is dependent entirely on wild spawning and growth. As such, enhanced fishery considerations do not apply to the fishery under assessment.

3.1.2 Scope of Assessment in Relation to Introduced Species Based Fisheries (ISBF)

Albacore is native to the South Pacific, and the fishery is therefore targeting a native species.

3.2 Overview of the fishery

The US troll fishery for albacore in the South Pacific was developed in the mid-1980s in a band of waters associated with the Subtropical Convergence Zone (STCZ) centered at about 40°S extending between about 120^0W and 175^0W (Laurs *et al.* 1987). The distributions of US South Pacific catches for 2003 and 2005, which were years with more US participation than in the most recent years, are shown in Figure 1 and Figure 2. Table 1 shows total catches of South Pacific albacore by gear with the US troll catches appearing for comparison. The fishery catches mostly 2 and 3 year-old pre-adult albacore. In order to participate in the South Pacific troll/jig fishery, US West Coast albacore vessels must travel more than 10,000 miles in transit, not including distance travelled on the fishing grounds. In the late 1980s and 1990s up to about 20 US vessels participated in the fishery, with highest catches amounting to 4,894 mt in 1991. In recent years, the US troll fishery for South Pacific albacore experienced significant decline in vessel participation due primarily to high fuel costs and uncertainty in market and fishing conditions. Only a limited number of US vessels have participated in the fishery in recent years. In 2011 six US vessels landed a total of 307 tons (WCPFC 2011). One AAFA albacore fishing vessel participated in the fishery in that year; its catch was reported to be representative of the other US vessels.

Trolling for albacore consists of towing artificial lures with barbless hooks behind a fishing vessel at a speed of about 6 knots. Individual trolling lines are generally 3 to 20 fathoms long and are often constructed from ¼-inch braided nylon line, with a 2 fathom leader made from 200 to 260 pound test nylon monofilament, to which is attached an artificial feathered jig with a barbless double hook. Fish are caught one at a time on the trolling line and, upon striking the jig, are retrieved immediately with a hydraulic gurdy or line-puller. Usually about 14 to 20 lines may be trolled by an albacore fishing vessel, however, typically not all lines are pulled during heavy fishing activity. Trolling vessels will customarily operate with a captain and one or sometimes two crew.

US albacore trolling vessels, which are also often called 'jig boats', that operate in the South Pacific include some of the largest vessels in the US albacore troll fleet, up to approximately 30m in length, with hold capacities from about 40 to 100+ short tons. All vessels have refrigerated fish holds, some with blast or plate freezing and others with refrigerated brine systems.

3.3 Principle One: Target Species

3.3.1 Albacore life history

Albacore tuna (*Thunnus alalunga*) is a highly migratory tuna found in all of the global oceans and Mediterranean Sea. In the Pacific Ocean there are two separate and distinct stocks of albacore, one in the northern hemisphere and the other in the southern hemisphere. South Pacific albacore matures by the relatively early age of approximately 5 – 6 years and have a moderate lifespan to about 10 to 12 years. The species is highly fecund with up to about 2.6 million eggs per spawning.

Mature albacore spawn in tropical and sub-tropical waters between about 10°S and 25°S during the austral summer. Juveniles recruit to surface fisheries located off the west coast of New Zealand, the Tasman Sea, and in the vicinity of the STCZ – around 40°S in the central Pacific at 1 year of age, from where they appear to gradually disperse to the north. Subsequently, there are regular migrations between tropical and subtropical waters. Albacore migrate south during early summer and north during winter coinciding with the seasonal oscillation of the location of the 23−28° C isotherm of sea surface temperature.

Extensive studies of South Pacific albacore biology are underway by Australian fisheries scientists. No maturity ogive has been estimated for South Pacific albacore, but is expected from the Australian

studies. South Pacific albacore males larger than 71 cm and females larger than 82 cm fork length (approximately age 5 or 6) represent the minimum size at maturity. The success of South Pacific albacore recruitment is related to ENSO conditions, with lower recruitment during periods of El Nino conditions and higher recruitment during episodes of La Nina. Sex ratios in catches (males:females) appear to vary with fishery from 1:1 in the New Zealand troll and longline fishery and, 2:1 to 3:1 in the Tonga–New Caledonia longline fishery.

Growth rate studies are ongoing with no definitive results to date, but will be available from the Australian studies. Growth rates are relatively slow compared to tropical tunas, with fork lengths at first birthday about 35 cm. Females appear to grow somewhat faster than males. Juvenile albacore are first recruited into the New Zealand troll fishery off the west coast of New Zealand at an age of about 10 to 14 months and measuring about 35 cm FL, following their migration from nursery grounds in the tropical and subtropical waters. Somewhat older and larger fish move eastward in temperate waters along the STCZ, where they are targeted by the US and other troll fisheries. Pre-adult fish remain and migrate throughout South Pacific temperate zone waters until they approach maturity, when they migrate into the subtropical waters during austral autumn. As the fish move to subtropical waters, they tend to be distributed in deeper, and are targeted by longline fisheries.

Albacore, like other tunas, have a number of physiological and morphological specializations that adapt them to a fast, continuous swimming lifestyle in the pelagic open ocean environment. They are endothermic as the result of a counter-current *rete mirable* heat exchanger system, which enables them to maintain internal core body temperatures up to 100 C warmer than ambient ocean water temperatures. Their metabolic rates are 2 to 10 times higher than most other bony fishes, and they have very large eyes for detecting prey and specialized fins and body form to reduce drag. Albacore are opportunistic carnivores and as adults have few predators, except they are sometimes are believed to be preyed on by large marine mammals, sharks, and billfish.

Albacore are generally considered inherently resilient to fishing pressure because they have a high rate of intrinsic increase, mature at an early age, are highly fecund, are not long-lived, have a broad distributional range, and do not exhibit any characteristics that enhance its susceptibility or population consequences to capture.

3.3.2 History of fishing

New Zealand fishers have conducted a South Pacific albacore troll fishery for since the 1960s in the coastal waters of New Zealand. In 2010 the New Zealand 136 vessel troll fleet caught 1,834 t. Driftnet vessels from Japan and Chinese Taipei targeted surface albacore in the central Tasman Sea and in the central Pacific near the STCZ during the 1980s and early 1990s. The driftnet catch reached 22,000 t in 1989, but has since declined to zero following a United Nations moratorium on industrial-scale drift-netting.

The surface troll fisheries for South Pacific albacore are highly seasonal, occurring mainly during December to April. In the post-driftnet era, the troll fisheries total catch has generally been in the range of 3,000–8,000 mt, but has declined to less than 3,000 mt in recent years, accounting for about 3% of the total catch of South Pacific albacore in 2010. In addition to the US South Pacific albacore troll fishery, in some years a small number of Canadian albacore troll vessels have also operated in the vicinity of the STCZ. However, none have done so in recent years.

Longline fishing, operating mostly north of about 25^0S and catching adult albacore, has always accounted for most of the South Pacific albacore catch, somewhat more than75% in the 1990s, but about 97% in 2010. Historically, longline fleets from Japan, Korea, and Chinese Taipei operated on

South Pacific albacore. However, more recently there has been a development and expansion of small-scale domestic fleets of number of Pacific Island countries.

Prior to 2001, South Pacific albacore total catches were generally in the range 25,000–44,000 t, although a significant peak was attained in 1989 (49,076 mt), when driftnet fishing was in existence. Since 2001, catches have greatly exceeded this range, primarily as a result of the growth in several Pacific Islands domestic longline fisheries. The South Pacific albacore total catch in 2010 was 88,919 t, the highest on record.

Table 1 shows total catches of South Pacific albacore by gear with the US troll catches appearing for comparison. The distributions of US South Pacific catches for 2003 and 2005, which were years with more US participation than in the most recent years, are shown in Figure 1 and Figure 2.

Table 1: Total catches (t) of albacore in the South Pacific (WCPFC 2011 with additional analysis).

Year	Longline	Pole and Line	Total Troll	Other	Total	US Troll	US troll as % of total troll	US troll % of total
1986	32,641	0	2,003	1,946	36,590	92	4.6	0.3
1987	21,979	9	2,134	930	25,052	878	41.1	3.5
1988	28,288	0	4,296	5,283	37,867	3656	85.1	9.7
1989	18,738	0	8,370	21,968	49,076	3672	43.9	7.5
1990	19,368	245	6,975	7,538	34,126	3886	55.7	11.4
1991	23,385	14	7,805	1,489	32,693	4894	62.7	15.0
1992	30,592	11	6,578	65	37,246	2956	44.9	7.9
1993	30,229	74	4,296	70	34,669	1010	23.5	2.9
1994	34,118	67	7,164	89	41,438	2270	31.7	5.5
1995	29,332	139	7,716	104	37,291	1951	25.3	5.2
1996	23,816	30	7,379	156	31,381	1947	26.4	6.2
1997	27,103	21	4,679	133	31,936	1739	37.2	5.4
1998	37,791	36	6,280	85	44,192	1618	25.8	3.7
1999	31,909	138	3,419	74	35,540	1339	39.2	3.8
2000	33,968	102	6,269	139	40,478	2433	38.8	6.0
2001	48,638	37	5,142	199	54,016	2107	41.0	3.9
2002	60,590	18	4,574	150	65,332	1337	29.2	2.0
2003	56,769	12	5,612	130	62,523	1574	28.0	2.5
2004	57,787	110	4,531	188	62,616	960	21.2	1.5
2005	57,597	29	3,451	215	61,292	487	14.1	0.8
2006	61,422	29	2,883	326	64,660	585	20.3	0.9
2007	56,590	17	2,082	60	58,749	272	13.1	0.5
2008	56,347	12	3,502	160	60,021	150	4.3	0.2
2009	73,932	21	2,031	211	76,195	237	11.7	0.3
2010	78,872	14	2,141	190	81,217	307	14.3	0.4

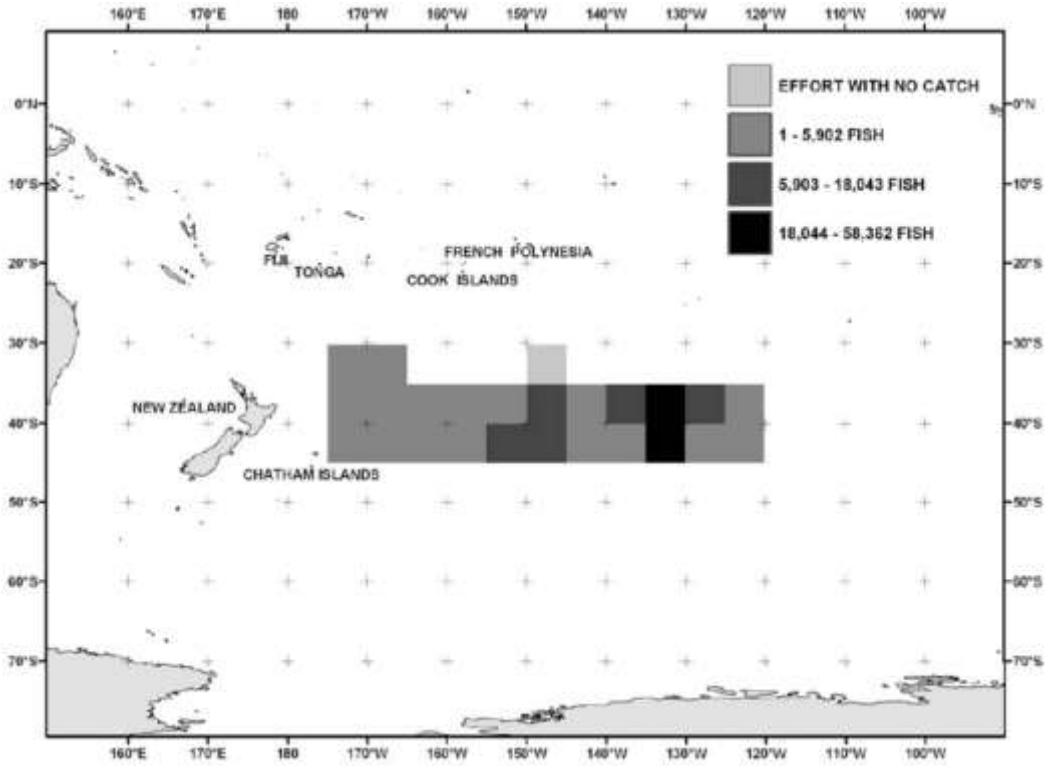


Figure 1: Distribution of albacore catches by US troll vessels in the 2002-2003 South Pacific season (Childers 2004).

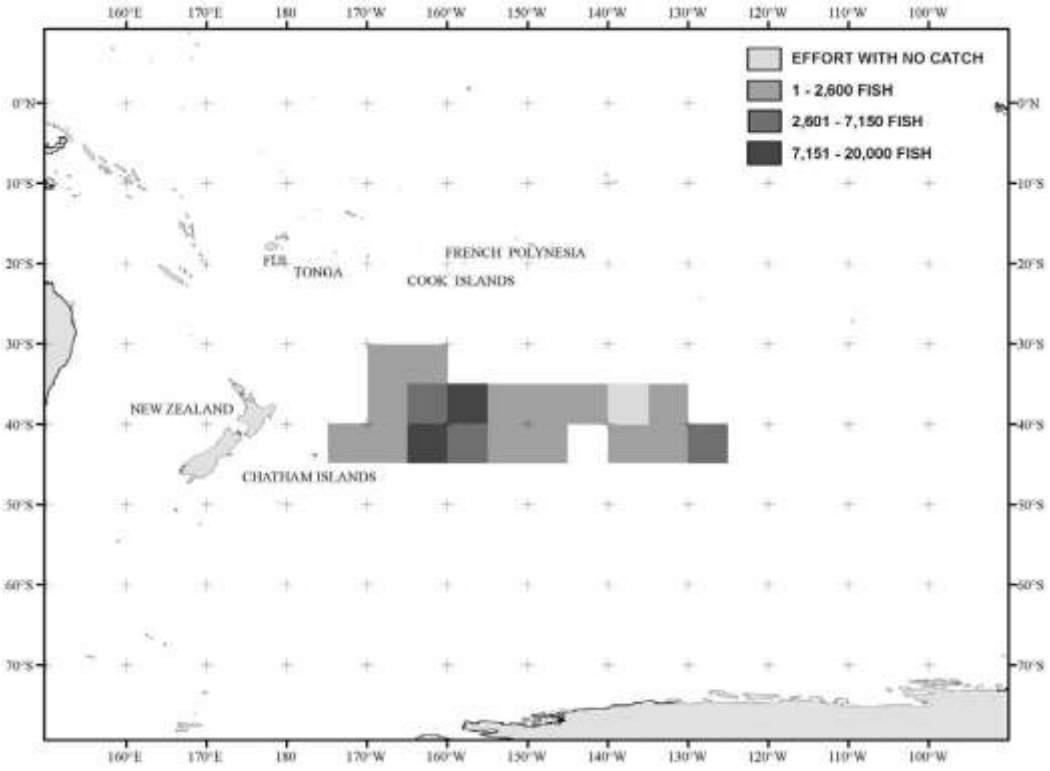


Figure 2: Distribution of albacore catches by US troll vessels in the 2004-2005 South Pacific season (Childers & Aalbers 2006)

3.3.3 Status of Stock, assessment methods and standards

The management unit is the South Pacific stock of albacore. This management unit has been defined on the basis of the distribution concentrations of the fish and the fisheries (see above). While east-west distributions are fairly extensive, the distribution of albacore spawning is limited to subtropical waters between about 10^0 S and 25^0 S. For assessment and management purposes, the north-south boundary between albacore stocks is considered to be the equator. There does not appear to be significant mixing across this boundary. Additionally, for assessment purposes the stock is considered to occur east of 140°E. Thus, the aggregated evidence is relatively strong and the management unit definition is currently without controversy.

The South Pacific stock was monitored through the assessment work of the Standing Committee on Tunas and Billfishes (SCTB) with the primary assessment lead provided by the permanent scientific staff of the South Pacific Community (SPC). The SCTB was a working group that has existed for more than 20 years, consisting of scientists from various nations that exploit South Pacific albacore and other highly migratory species. Stock assessments continue to be made by scientists at the SPC under the review of the WCPFC Scientific Committee (SC).

Monitoring of the stock consists of collecting appropriate catch data, collating and analyzing effort data through catch-per-unit-effort (CPUE) analysis, conventional tagging and limited archival/pop-up tagging. Additionally, the SC advises on priorities for biological research on aspects such as reproductive biology and disseminates research results and statistics to cooperating scientists and the management bodies. Specifically, for terms of the most recent assessment, the primary monitoring tools have been the catch-at-size, conventional tagging and CPUEs from key fishing countries. Specifically, CPUEs from longline fisheries of Japan, Korea, Taiwan and the Pacific Island nations are used. Additionally, CPUE data from US and New Zealand troll fisheries are incorporated and driftnet fisheries from Japan that existed in the past. These data are used as auxiliary data which are matched statistically.

The most recent assessment of the South Pacific albacore stock was done in 2011 (Hoyle 2011). The previous two stock assessments for South Pacific albacore (Hoyle *et al.* 2008 and Hoyle & Davies 2009) concluded that there are no sustainability concerns regarding the overall stock. Due to improved understanding of the data inputs, the model structure of the 2009 alternate case was applied in the 2011 reference case.

In 2011, the following conclusions relative to stock status were reached and presented:

a. Estimated stock status is similar to 2009 estimates.

b. Biological research indicates that male and female albacore have quite different growth curves, which are not included in the new model. Growth curve errors can bias estimates of biomass and fishing mortality. While this might indicate that some caution should be used in interpreting some management parameters (absolute calculated biomass and fishing mortality), the use of ratio estimates is not greatly affected. The use of an average growth rate combined with an approximate 50:50 sex ratio in the catch also reduces bias in yield per recruit estimates.

c. There is considerable uncertainty about the early biomass trend due to increased variation relative to later years, but this has negligible effect on the management parameters (ratio estimators), or advice to managers regarding the status of the stock.

d. The ratios F2007-2009/FMSY (0.26) , SB2009 / SBMSY (2.25), and B2007-2009 /BMSY (1.26) do not indicate that overfishing of South Pacific albacore is occurring, nor do they indicate that the stock is in an overfished state.

e. Results from the 2009 assessment suggest that much variation in management parameters is attributable to the way the assessment model converges on parameter estimates or "steepness", which we have no information about. This variation makes management advice based on maximum sustainable yield, MSY, (85,200mt) relatively uninformative. Alternative metrics such as the expected catch per unit effort, CPUE, relative to a target CPUE, may be less affected by uncertainty. They may also be more relevant to the management needs of the fishery.

f. There is no indication that current levels of catch (50,000 – 70,000 mt) are causing recruitment overfishing, particularly given the age selectivity of the fisheries.

g. Longline catch rates appear to be declining, and catches over the last 10 years have been at historically high levels. This CPUE trend may be significant for management. In summary, the 2011 assessment confirmed (with additional data and an updated model) the results of the previous two assessments. While some questions remain (differential growth rates and early biomass trends) the ratio of current fishing mortality (F) to commonly applied F-based reference points indicate the South Pacific albacore stock is not overfished and is not experiencing overfishing. The current assessment is robust.

The management interface for the US with respect to WCPFC is both reactive and proactive in nature. As a member of the Commission, the US is responsible for ensuring that management measures applied within US waters are compatible with those of the WCPFC, and that fishing by US-flagged vessels operating both is carried out in accordance with any measures put in place by WCPFC.

3.4 Principle Two: Ecosystem

3.4.1 Background

Albacore inhabit the open-ocean, and spend most of their time in the upper layers above 250 m depth (Childers et al. 2011). Albacore distribution, relative abundance and availability to capture are closely associated with oceanic frontal structure (Laurs & Lynn 1991); in the South Pacific, adult albacore are found between the equator and approximately 50^0S, but juveniles are most common in the area of the Subtropical Front/Subtropical Convergence Zone (STCZ), between about 30^0S and 45^0S, in waters of 16 to 21 ^{0}C (Table 3) (Laurs 1986, Roberts 1980).

Albacore are primarily daytime, visual predators (Childers *et al.* 2011). In the South Pacific, albacore are opportunistic carnivores which feed on a wide variety of small fish, planktonic crustaceans, and squid, with juveniles less than 50 cm fork length focusing on planktonic crustaceans, juveniles 50-75 cm fork length consuming a mixture of crustacea, squid, and small fish, with fish becoming increasingly prevalent as the albacore increase in size (Bailey & Habib 1982). Diet can also differ substantially between regions; planktonic crustacea, squid, and small fish were commonly consumed in oceanic areas east of New Zealand, with lanternfish (myctophids) and Pacific saury (*Cololabis saira*) dominating near to New Zealand and Peruvian jack mackerel (*Trachurus symmetricus murphyi*) predominating elsewhere in the STCZ (Bailey 1986). As well as humans, predators of adult albacore are believed to be large marine mammals, sharks and billfishes, while young albacore may also be taken by other larger tunas and fish species (Kitchell *et al.* 1999).

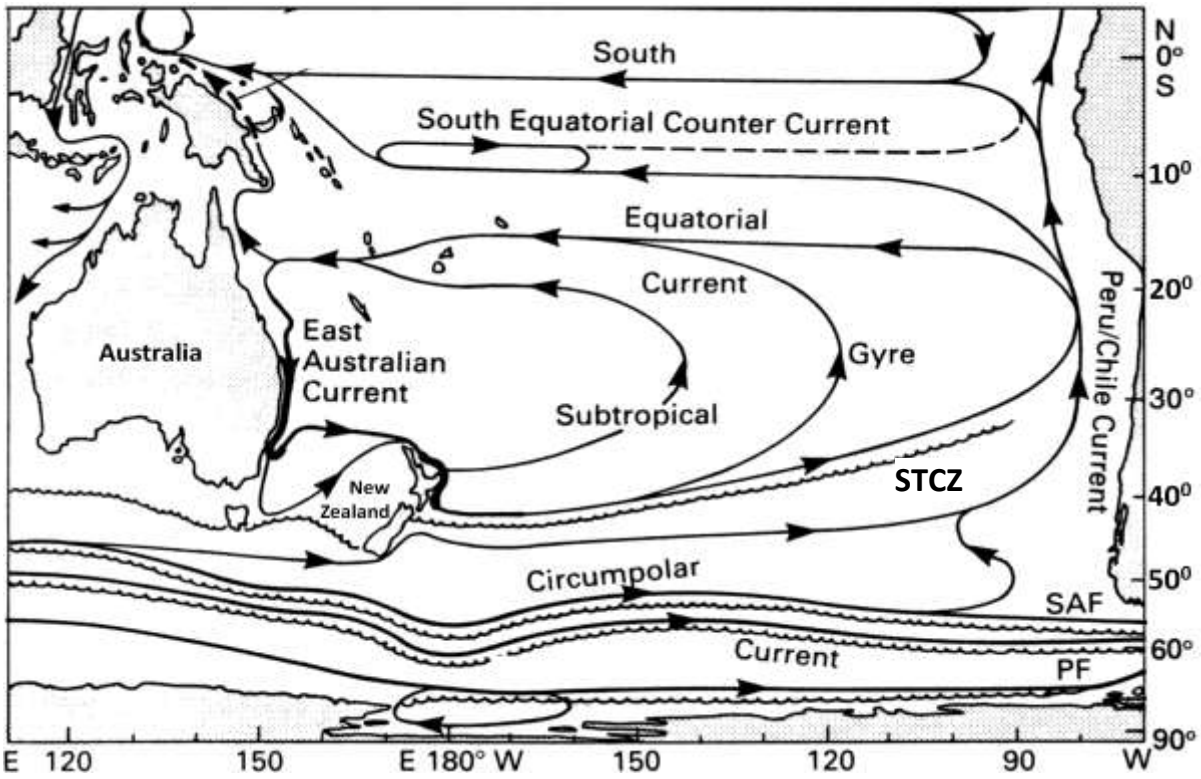


Figure 3: Surface current system of the South Pacific Ocean (Tomczak & Godfrey 1994). Abbreviations include Subtropical Convergence Zone – STCZ.

3.4.2 Retained and by-catch species

The troll fishing gear employed in the AAFA South Pacific albacore fishery is highly selective; it is employed at the sea surface in deep water such that there is never any contact with the seabed, while the gear always remains attached to the vessel and must be actively fished. Because fish are brought aboard immediately after they become hooked, fishermen are also quickly able to discern if an albacore shoal being targeted is made up of fish that are too small to be retained for economic or regulatory reasons. In such cases, lines can be pulled in quickly and the vessel moved in search of another shoal containing larger, marketable albacore.

Landings from the US South Pacific albacore troll fishery are available from 1986 – 2010 (Table 1), and retained catch data are available for the period 2006 – 2010 (Table 2). Retained species may include very small amounts of a variety of HMS species, but the annual quantity of none of these species has exceeded 0.5 t in total in any year for which data are available. These very low figures for retained species are supported by data from the New Zealand albacore troll fishery, which show that the total for no retained species has exceeded 0.7 % of the albacore total in any season between 1989/90 and 2007/2008 (Kendrick & Bentley 2010). These figures represent negligible quantities that are considered to pose no risk to HMS stocks.

While there is no systematic observer program in place at the present time, data are available on bycatch in the fishery (i.e. fish that are discarded after capture) from observer trips undertaken in the 1990 – 1991 and 1991 – 1992 seasons (Labelle 1993). Consistent with the nature of the gear and the available data on retained catches, bycatch across the entire 1990 – 1991 season was estimated to be 1.7 % of the retained albacore catch, with the majority of the discarded fish being < 57 cm length and

still alive (on the basis that they were not in great demand by canneries but may survive being released). Other discarded fish were reported as being shark damaged. On two trips in 1991 – 1992, the bycatch rate was estimated to average 7 % of the total retained albacore catch, a higher figure but from a smaller sample of cruises (Labelle 1993).

Table 2: Estimated weight (t) of landings by albacore troll vessels of the US and its Participating Territories by species in the WCPFC statistical area for 2006 – 2010 (any figures <0.5 t, including 0, are shown as 0) (WCPFC 2011c).

Species	2006	2007	2008	2009	2010
Albacore, North Pacific	2	0	1	0	0
Albacore, South Pacific	585	272	150	237	307
Bigeye tuna	0	0	0	0	0
Pacific bluefin tuna	0	0	0	0	0
Skipjack tuna	0	0	0	0	0
Yellowfin tuna	0	0	0	0	0
Other tuna	0	0	0	0	0
TOTAL TUNAS	587	272	151	237	307
Black marlin	0	0	0	0	0
Blue marlin	0	0	0	0	0
Sailfish	0	0	0	0	0
Spearfish	0	0	0	0	0
Striped marlin, North Pacific	0	0	0	0	0
Striped marlin, South Pacific	0	0	0	0	0
Other marlins	0	0	0	0	0
Swordfish, North Pacific	0	0	0	0	0
Swordfish, South Pacific	0	0	0	0	0
TOTAL BILLFISHES	0	0	0	0	0
Blue shark	0	0	0	0	0
Mako shark	0	0	0	0	0
Thresher sharks	0	0	0	0	0
Other sharks	0	0	0	0	0
TOTAL SHARKS	0	0	0	0	0
Mahimahi	0	0	0	0	0
Moonfish	0	0	0	0	0
Oilfish	0	0	0	0	0
Pomfrets	0	0	0	0	0
Wahoo	0	0	0	0	0
Other fish	0	0	0	0	0
TOTAL OTHER	**0**	**0**	**0**	**0**	**0**
TOTAL	**587**	**272**	**151**	**237**	**307**

3.4.3 Endangered, threatened and protected (ETP) species

ETP species of potential relevance to the AAFA South Pacific albacore fishery include a variety of marine mammal, sea turtle and bird species. These species and identified threats include those listed in Table 3, below. The Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) are key pieces of US legislation, but the US is not a Party of the Convention on the Conservation of Migratory Species of Wild Animals.

Table 3: ETP species of potential relevance to the AAFA South Pacific albacore troll fishery.

Common Name	Scientific Name	ESA Conservation Status	Identified Threats	Albacore troll fishery identified?
Marine Mammals				
Blue whale	*Balaenoptera musculus*	Endangered	Identified human impacts including ship collision, disturbance by vessels, entanglement in nets and trap fishing gear, habitat degradation, and military operations (Reeves *et al.* 1998).	No
Finback whale	*Balaenoptera physalus*	Endangered	"*No conservation plans have been created for finback whale*" (USFWS 2012a).	No
Humpback whale	*Megaptera novaeagliae*	Endangered	Identified human impacts include entanglement in fishing gear, subsistence hunting, ship collision, acoustic disturbance, habitat degradation, and competition with humans for resources (NMFS 1991).	No
Sei whale	*Balaenoptera borealis*	Endangered	"*No conservation plans have been created for sei whale*" (USFWS 2012b).	No
Sperm whale	*Physeter catodon*	Endangered	"*No conservation plans have been created for sperm whale*" (USFWS 2012c).	No
Southern right whale	*Eubalaena australis*	Endangered	Predation from killer whales and large sharks, entanglement in active and ghost fishing gear, aquaculture farms and coastal development that results in loss of habitat and ship strike (NZDOC 2012).	No
Sea turtles				
Green turtle	*Chelonia mydas*	Threatened	Identified impacts include directed take, coastal construction and light pollution, nest predation, habitat degradation, environmental contaminants, debris entanglement and ingestion, incidental take in fisheries (trawls, gillnets, traps, pound nets, seines, driftnets and longlines), predation, power plant entrapment and boat collisions (NMFS 1998a).	No (but hook & line in list of gears that may catch green turtles (NMFS 1998a))
Leatherback turtle	*Dermochelys coriacea*	Endangered	Identified impacts include directed take, coastal construction and light pollution, nest predation, habitat degradation, environmental contaminants, debris entanglement and ingestion, incidental take in fisheries (gillnets and longlines), predation and boat collisions (NMFS 1998b).	No
Loggerhead turtle	*Caretta caretta*	Threatened	Identified impacts include directed take, coastal construction and light pollution, nest predation, habitat degradation, environmental contaminants, debris entanglement and ingestion, incidental take in fisheries (trawls, gillnets, traps, pound nets, seines, driftnets and longlines), predation, power plant entrapment and boat collisions (NMFS 1998c).	No (but hook & line in list of gears that may catch loggerhead turtles (NMFS 1998c))
Hawksbill turtler	*Eretmochelys imbricata*	Endangered	Identified impacts include directed take, disease and parasites, habitat degradation, environmental contaminants, debris entanglement, fisheries (incidental take), predation, boat collisions, marina and dock development, dredging, dynamite fishing and power plant entrapment (NMFS 1997).	No (but hook & line in list of gears that may catch hawksbill turtles (NMFS 1997))
Seabirds				
Chatham petrel	*Pterodroma axillaris*	Endangered	Habitat loss, predation by introduced species, natural disasters (fire, cyclone) (USFWS 2009).	No
Magenta petrel	*Pterodroma magentae*	Endangered	Habitat loss, predation by introduced species, natural disasters (fire, cyclone) (USFWS 2009).	No

Interactions between ETP species and the AAFA troll fishery are highly unlikely, given that trolling is highly selective, and the jigs used should preclude the catching of any marine mammal, turtle or seabird species other than possibly through accidental snagging. However, this risk is minimal and the troll fisheries are not identified in any recovery or spotlight species action plan (Table 3).

The US National Bycatch Report assessed the South Pacific albacore troll fishery was deemed to be in Tier 0 for fish, marine mammals and other protected species (NMFS 2011a). Tier 0 classification was stated as meaning that bycatch data collection programs have not been implemented, and that neither a method for estimating bycatch nor estimates of bycatch are available. The 2012 NOAA 'List of Fisheries', that as a requirement of the Marine Mammal Protection Act (1972) classified the South Pacific albacore troll fishery as being a Category II ("*occasional incidental mortality and serious injuries of marine mammals*") fishery. The fishery was assessed as being Category II because, although there are no documented injuries or mortalities of marine mammals, the fishery was only introduced to the List of Fisheries in 2009 and there are considered to be limited data on which to judge impacts (NOAA 2011a).

The assessment team was conscious of the fact that bycatch of albatross was raised as a concern by an individual stakeholder during the third annual surveillance audit of the first AAFA North Pacific pole and troll albacore fishery certificate (Powers *et al.* 2010). At that time, Southwest Fisheries Science Center (SWFSC) staff examined 37,750 daily logsheets from 2000 and 24,530 daily logsheets from 2005, and only two interactions between the North Pacific albacore pole and troll fishery and albatross were found; in both cases, the birds were released. There was no information available on the species of albatross or on the condition of the birds upon release, but there is much greater potential for the birds to be released alive from pole and troll gears than from gears such as long-line or drift nets, because the gear is worked in close proximity to the vessel, and pole and troll gears are retrieved immediately upon hooking anything. SWFSC staff confirmed that there was negligible potential for interaction between the AAFA troll fishery and seabirds at the October 2011 reassessment meeting, while albacore pole and troll fisheries generally were not implicated in a 2005 review of RFMO performance against albatross bycatch (Small 2005).

In summary, the highly selective nature of the gear types, information provided in the various recovery and species action plans highlighted in
Table 3, the lack of any recommendations made regarding a need to collect more data on catches in the South Pacific albacore troll fishery in the US National Bycatch Report (NMFS 2011a), it is highly unlikely that the AAFA South Pacific albacore troll fishery poses a threat to ETP species.

3.4.4 Habitat and ecosystem effects

The AAFA South Pacific troll fishery is highly selective, and operates at the surface in deep, oceanic water around and within the STCZ; there is therefore no interaction with the seabed, while the gear comprises short lines with jigs attached, which at most impact the surface pelagic habitat of the South Pacific in an imperceptible and highly transient manner. There is a small catch of other retained or discarded species.

Oceanic pelagic species are commonly opportunistic carnivores with a wide dietary spectrum. Through co-occurrence and evidence of their response to baited long-lines, species including skipjack tuna (*Katsuwonus pelamis*), yellowfin tuna (*Thunnus albacares*), bigeye tuna (*Thunnus obesus*), and pomfrets (e.g. *Eumegistus* spp., *Brama* spp., *Collybus* spp.) are likely to be competitors of albacore (Murray 1993). Argue *et al.* (1983) reported that juvenile albacore smaller than 12 cm were found in the stomachs of skipjack tuna and wahoo (*Acanthocybium solandri*). It seems likely that other tunas, tuna-like species, and billfish are also likely to prey on small or juvenile albacore, while apex predators such as mako (*Isurus oxyrinchus*) and blue sharks (*Prionace glauca*), billfish, and cetaceans

(e.g. *Delphinus* spp.) may take larger individuals. Cookie cutter sharks (*Isistius brasiliensis*) are also known to prey on albacore, taking non-fatal bites from the fish (Hampton *et al.* 1991). Albacore was not, though, found to be a key prey item for any species in the central Pacific (Kitchell *et al.* 1999), and the fishery appears very unlikely to significantly impact other higher trophic-level predators.

3.5 Principle Three: Management System

3.5.1 Background

Albacore have a Pacific-wide distribution, with separate and distinct stocks in the northern and southern hemispheres. The responsibility for their management is shared by between the IATTC and the WCPFC. The distribution of South Pacific albacore extends beyond the WCPFC Convention Area. However, the stock is assessed by WCPFC for the area of the Pacific south of the Equator and between 140^0 E and 110^0 W. Based on recommendations from its Scientific Committee, the WCPFC formulates and adopts Conservation and Management Measures (CMMs) for South Pacific albacore. The individual member and cooperating county members are then responsible for implementation of the CMMs.

The National Oceanic and Atmospheric Agency, National Marine Fisheries Service (NOAA/NMFS) is the US government agency responsible for all aspects of the conservation and management of US fisheries. NOAA/NMFS is also responsible for carrying out the US policies to manage and conserve marine protected resources. Section 302 of the 1976 Magnuson-Stevens Fishery Conservation and Management Act created eight Regional Fishery Management Councils. The Councils develop fishery management plans and management measures for the US fisheries operating within their adjacent EEZs and for US-flagged fisheries operating on the high seas outside the EEZ. NOAA/NMFS approves and implements these plans and measures.

Vessel Registration

The High Seas Compliance Act (Public Law 104-43, title I, par 102, Nov. 3, 1995) established a system of permitting, reporting, and regulation for vessels of the US fishing on the high seas. All US vessels fishing on the high seas must have a High Seas Compliance Act Permit certifying compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, adopted by the Conference of the Food and Agriculture Organization of the United Nations on November 24, 1993. The permit is renewable every five years.

Permitting of Commercial Fishers

The main regulations that apply to the AAFA South Pacific albacore fishery under MSC reassessment include those issued by the National Marine Fisheries Service (NMFS) under the authority of the Western and Central Pacific Fisheries Convention Implementation Act to implement certain provisions of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean Convention area. The final regulations were published in the Federal Register on January 21, 2010, at pages 3335 - 3355 of volume 75 and became effective on April 21, 2010. These regulations will be codified in the Code of Federal Regulations at 50 CFR Part 300. NMFS has determined that this action is necessary for the United States to satisfy its international obligations under the Convention, to which it is a Contracting Party. It will have the effect of requiring that all relevant US fishing vessels are operated in conformance with the provisions of the WCPFC Convention. The regulations include:

- Owners or operators are required to have a valid high seas fishing permit with a 'WCPFC Area Endorsement issued by NMFS.

- Reporting and record-keeping are required on fish catches including catch, effort, locations and times of fishing, gear-type, species caught and amounts retained and discarded.
- There are also requirements related to permitting, vessel monitoring systems, vessel observers, vessel markings, at-sea transshipment, and boarding and inspection on the high seas, among others.

Fishing Locations

The US troll fishery for albacore in the South Pacific takes place in international waters. The fishery was developed beginning in the mid-1980s (Laurs *et al.* 1987) in about a 10^0 latitude band centered about 40°S associated with the Subtropical Convergence Zone (STCZ) between about 120^0W and 175^0W. This is primarily an austral summer fishery that takes place mostly during December through April.

3.5.2 Administrative Arrangements and Boundaries

Management of albacore throughout the Western Central Pacific Ocean (WCPO) is the responsibility of the WCPFC and IATTC. However, stock assessments are conducted by the WCPFC and Conservation and Management Measures are formulated and adopted by the WCPFC. The WCPFC is one of the Regional Fisheries Management Organizations (RFMOs) to have been established following the finalization of the United Nations Fish Stocks Agreement. The WCPFC Convention was finalized in 2000 and the Commission established in 2004.

The management interface for the US with respect to WCPFC is both reactive and proactive in nature. As a member of the Commission, the US is responsible for ensuring that management measures applied within US waters are compatible with those of the WCPFC, and that fishing by US-flagged vessels is carried out in accordance with any measures put in place by WCPFC.

3.5.3 Legislation and Regulation

The *Magnuson-Stevens Fishery Conservation and Management Act* (MSA) provides the legislative framework and is the primary law governing marine fisheries management in United States. The Act was first enacted in 1976 and has been amended many times over the years. Two major recent sets of amendments to the law were the:

- The Sustainable Fisheries Act (1996) addresses many topics, among which includes Title V, *Implementation of Western and Central Pacific Fisheries Commission* (http://www.nmfs.noaa.gov/sfa/sustainable_fishereries_act.pdf).
- *Magnuson–Stevens Fishery Conservation and Management Reauthorization Act of 2006*, which has numerous purposes (http://www.nmfs.noaa.gov/msa2005/index.html):
    - Acting to conserve fishery resources
    - Supporting enforcement of international fishing agreements
    - Promoting fishing in line with conservation principles
    - Providing for the implementation of fishery management plans (FMPs) which achieve optimal yield
    - Developing underutilized fisheries
    - Protecting essential fish habitats
    - Additionally, the law calls for reducing bycatch and establishing fishery information monitoring systems.

The main regulations that apply to the AAFA South Pacific albacore fishery under MSC reassessment include:

- Regulations issued by the National Marine Fisheries Service (NMFS) under the authority of the Western and Central Pacific Fisheries Convention Implementation Act to implement certain provisions of the Convention. The final regulations were published in the Federal Register on January 21, 2010, at page 3335 of volume 75 and became effective on April 21, 2010. These regulations were codified in the Code of Federal Regulations at 50 CFR Part 300. The regulations include requirements related to permitting, vessel monitoring systems, vessel observers, vessel markings, reporting and recordkeeping, at-sea transshipment, and boarding and inspection on the high seas, among others. NMFS has determined that this action is necessary for the United States to satisfy its international obligations under the Convention, to which it is a Contracting Party. It will have the effect of requiring that all relevant US fishing vessels are operated in conformance with the provisions of the Convention.

3.5.4 Harvest Controls

Management of albacore tuna throughout the WCPO is the responsibility of the WCPFC and the IATTC. Under these regional conventions, the US is responsible for ensuring the management measures applied to the South Pacific albacore troll fishery is compatible with those of the Commissions. Conservation and Management Measures (CMM) set by WCPFC place binding effort controls on the South Pacific albacore stock. CMM 2010-05, which replaced CMM 2005-02 containing similar provisions, requires that Commission members, cooperating non-members and participating territories of the WCPFC shall not increase the number of their fishing vessels actively fishing for South Pacific albacore in the Convention Area south of 20°S above current levels or recent historical (2000-2004) levels. This CMM for albacore in the South Pacific mirrors a similar measure in place for North Pacific albacore within the WCPFC area, and was partly established to ensure there was no displacement of effort from the North Pacific albacore fisheries into South Pacific fisheries.

The South Pacific albacore stock is currently not overfished nor is overfishing occurring, and current biomass levels are sufficient to support current catch levels. According to the WCPFC Scientific Committee (SC), any increases in catch or effort are likely to result in catch rate declines, especially for longline catches of adult albacore, with associated impacts on vessel profitability. It was also noted that vessel activity must be managed, as per the requirements of CMM 2010-05, and that the impact of oceanographic and climatic variability is a key area of uncertainty, such that continued integration in future stock assessments was supported (WCPFC 2011c).

While target and limit reference points have yet to be formally adopted by the WCPFC, the SC has been actively conducting research for identification of candidate limit reference points for the key target species in the WCPFC, including South Pacific albacore. At its Seventh Regular Meeting, the SC also recommended a three-level hierarchical approach to selecting and setting limit reference points for fishing mortality (F) and Spawning Stock Biomass (SSB) based on decreasing levels of available information. The first level uses F_{MSY} and SSB_{MSY}, but only in the case where a reliable and precise estimate of steepness is available. The second level uses SPR and 20% of SSB0 for cases in which uncertainty in steepness is high, but the key biological (natural mortality, maturity) and fishery (selectivity) variables are reasonably well estimated. The third level does not include an F-based limit reference point if the key biological and fishery variables are not well estimated, but simply uses a SSB limit of 20% of SSB0. Given the uncertainties in some of the key life-history and fishery variables required for either level 1 or level 2 in the suggested hierarchical approach, the SC recommended that level 3 (the default SSB depletion option) be used for South Pacific albacore in general, except where a thorough exploration of model sensitivity and, or, formal MSE results are available (Preece *et al.* 2011).

3.5.5 Monitoring, Control and Surveillance

The US has a strong enforcement program to deter fisheries violations through successful prosecution and deterrent penalties. NOAA has authority and responsibility under more than 30 federal statutes to manage sustainable fisheries, and to protect living marine resources, including marine areas and species (NOAA Policy for Assessment of Penalties and Permit Sanctions – March 16, 2011, 56pp). Officers and agents in the NOAA Office of Law Enforcement, the US Coast Guard, Customs and Border Protection, Immigration and Customs Enforcement, US Fish and Wildlife Service, and State officers authorized under Cooperative Enforcement Agreements, monitor compliance and investigate potential violations of the statutes and regulations enforced by NOAA. Monitoring, control and surveillance are carried out across the fishing sectors to ensure observance of regulatory and statute requirements. Monitoring, control and surveillance actions include:

- Fishing permit requirements
- Fishing permit and fishing vessel registers
- Vessel and gear marking requirements
- Fishing gear and method restrictions
- Observer Program
- Reporting requirements for catch, effort, and catch disposition
- Vessel inspections
- Record keeping requirements
- Auditing of licensed fish buyers
- Control of transshipment
- Monitored unloads of fish
- Information management and intelligence analysis
- Analysis of catch and effort reporting and comparison with observer, landing and trade data to confirm accuracy
- Boarding and inspection by fishery officers at sea
- Aerial and surface surveillance,
- Any other measures agreed by WCPFC

Penalties for fisheries related fisheries related violations include fines; forfeiture of fish, vessels, other property and quota; and imprisonment. With respect to permit sanctions, where applicable, the statutes that NOAA enforces generally provide broad authority to suspend or revoke permits.

Compliance with fisheries related regulations and statutes ultimately allows the US to meet its international obligations for the management and conservation of HMS.

Reporting

The US HMS fisheries management regime is supported by a comprehensive set of reporting and recordkeeping regulations, as per mandatory requirements set by the regulations issued by the NMFS under the authority of the WCPFC Implementation Act (see above).

3.5.6 Consultation

The consultation processes of the management systems at both the international and domestic levels provide opportunities for all interested and affected parties to be involved. At the international level both RFMOs have articles in their respective Conventions that provide that the Commission will consult, cooperate and collaborate with other relevant organizations, particularly those with related objectives and which can contribute to the attainment of the objectives of the Convention. Subject to Commission rules and procedures, representatives from NCPs, IGOs and NGOs may participate in

Commission meetings and its subsidiary bodies as observers or otherwise as appropriate; have access to pertinent information subject to Commission rules and procedures; and, are permitted to give oral presentations and distribute papers through the Secretariat. Interested stakeholders easily may keep appraised of fisheries management and related actions, topics, status, etc. Agendas for all meetings, reports of presentations given at meetings, status of actions, etc. are published in easily downloadable formats from the RFMO and US Fishery Management Council websites and other media.

3.5.7 Dispute Resolution

Both the IATTC and the WCPFC operate under charters specifying voting rules and procedures. However, decisions are usually made by consensus of the member states. There also are dispute resolution mechanisms. Additionally dispute resolution through litigation and the courts is available. Any such disputes are to be well documented and readily available to appropriate parties. There have been no disputes concerning the AAFA South Pacific albacore troll fishery.

4 Evaluation Procedure

4.1 Previous Assessments

The AAFA South Pacific albacore troll fishery was previously certified against the MSC Principles and Criteria as sustainable in 2007. At that time, the fishery was assessed against the MSC Fishery Certification Methodology Version 6, and a non-standard assessment tree was used that defined 76 separate Performance Indicators (PIs) across the three MSC Principles. The three Principles were scored:

Principle 1 (Sustainability of the Exploited Stock):	87.0
Principle 2 (Maintenance of the Ecosystem):	93.0
Principle 3 (Effective Management System):	94.0

Two Performance Indicators (PI), PIs 1.1.3.6 and 1.1.3.7 (Decision rules and harvest control mechanisms) were scored at 75 in the 2007 assessment, and a single Condition of Certification was set against the fishery, as detailed below.

2007 assessment of the AAFA South Pacific albacore fishery

Condition 1. Decision rules and harvest control mechanisms

Relevant Scoring Indicator: 1.1.3.6, 1.1.3.7 - Score 75

Action required:
It is recognised that the South Pacific albacore stock is assessed to be in a situation where recent catches are less than the MSY, aggregate fishing mortality is less than *F*MSY and the adult biomass is greater than *B*MSY. As such, at this point in the stock's exploitation history, decision rules are not mandatory, and specific mechanisms to control harvest are not needed (although these have been implemented for other species when required). However, to expedite the precautionary consideration of such rules and mechanisms, AAFA are required to take appropriate steps to request that management agencies begin a process to develop a framework for development and clear documentation of decision rules and appropriate harvest control mechanisms in the fishery.

Timescale:
Appropriate requests from AAFA should be made within 6 months of certification of the fishery.

Throughout the duration of their first South Pacific albacore certificate, AAFA has made requests through letters and attending relevant meetings for the development of more sustainable management mechanisms for the South Pacific albacore stock. These efforts were always considered to be appropriate and adequate to support the continued certification of the fishery. The focus of the single Condition was, though, made more outcome-focussed in the 1st annual surveillance report, which stated:

"*While AAFA have met the requirement of the Condition it remains open until clear decision making rules are developed, fully documented and reconciled with appropriate reference points and with data and assessment limitations.*" (Powers *et al.* 2008).

In regard of the development of decision rules and harvest control mechanisms, advances have been made for the South Pacific albacore stock through discussions at the WCPFC Scientific Committee (Preece *et al.* 2011.). However, decision-making rules and reference points have yet to be formally

adopted, and so Condition against the first AAFA certificate remains open. No further Conditions were set against the AAFA South Pacific albacore troll fishery during the period of the first assessment from 2007 - 2012.

The MSC was contacted prior to commencing the reassessment of the AAFA South Pacific albacore fishery, and advice was provided such that the remaining Condition on the fishery could be carried over to a new certificate, should the fishery be recertified, but updated with the latest guidance regarding setting conditions that are time-bound and outcome-focused, and with regard to the other MSC fisheries with which the fishery assessment would need to be harmonised; this is outlined in the CR V1.2 at Section 27.24.2.4 b:

(For fisheries with conditions written prior to the requirement for outcome-based conditions (2006), or against performance indicators in assessment trees which differ from those in the tree being used in the reassessment):

> *ii) If the conditions are not appropriate to deliver SG80 outcomes in the reassessment tree, CABs shall consider what action is needed to deliver the outcome required at SG80 level, and evaluate whether this outcome has been achieved.*
>
> *1) If the SG80 level has not been achieved, such conditions shall be rewritten against the reassessment tree following the requirements specified in 27.11, with a timeline for completion of less than one certification period.*

The approach as outlined above has been taken with the AAFA South Pacific fishery, where two new conditions (Conditions 1 and 2) have been written to account for the existing, open condition.

4.2 Harmonised Fishery Assessment

The MSC requires that assessments are harmonised for fisheries that overlap. An overlap occurs when some or all of the same stock, environmental and/or management concerns covered by MSC Principles 1, 2 and/or 3 are the same as that/those of another MSC certified fishery or fishery in assessment. In essence, harmonisation requires that the assessment trees used are the same or complementary, and that outcomes with respect to evaluation, scoring and conditions are consistent between the fisheries. Full details are available in the Section 27.4.13 and Annex CI of the CR (MSC 2012).

4.2.1 Fisheries of potential harmonisation relevance

There are a number of MSC fisheries that may be considered to be of potential harmonisation relevance with respect to AAFA's South Pacific albacore troll fishery. These are shown in Table 4, below. It is noted that the previous assessment of the AAFA South Pacific fishery cannot be compared directly, PI by PI, against this new assessment because the previous assessment was undertaken against a non-standard, pre-FAM assessment tree.

Table 4: MSC fisheries of potential harmonisation relevance to the AAFA South Pacific albacore troll fishery.

Fishery	Species	Stock/Region	Certified	Relevant to harmonisation?
New Zealand albacore tuna troll	Albacore tuna (*T. alalunga*)	South Pacific Ocean Western coast of New Zealand, part of FAO statistical area 81	Yes (May 2011)	Yes (Same stock)
Fiji albacore tuna longline	Albacore tuna (*T. alalunga*)	South Pacific Ocean FAO statistical areas 71, 77 and 81	No (In assessment)	Yes (Same stock)
American Western Fishboat Owners albacore tuna	Albacore tuna (*Thunnus alalunga*)	North Pacific Ocean US EEZ and the North Pacific	Yes (March 2010)	No (Different stock)
Canadian Highly Migratory Species Foundation British Columbia albacore tuna	Albacore tuna (*T. alalunga*)	North Pacific Ocean Canadian EEZ and the North Pacific	Yes (March 2010)	No (Different stock)
Tosakatsuo Suisan pole & line skipjack tuna	Skipkack tuna (K*atsuwonus pelamis*)	Central and North Pacific Ocean FAO statistical areas 61 and 71	Yes (November 2009)	No (Different species)
Mexico Baja California pole & line yellowfin and skipjack tuna	Yellowfin tuna (*T. albacares*) Skipjack tuna (*K.pelamis*)	Eastern Central Pacific FAO statistical area 77	Yes (July 2012)	No (Different species)

4.2.2 Harmonisation considerations

The New Zealand albacore troll fishery was certified as sustainable in May 2011 (Medley *et al.* 2011). A harmonisation check was made with the AAFA South Pacific fishery at that time, and the New Zealand fishery assessment team concluded:

"*The AAFA South Pacific Albacore fishery applied a different scoring table and MSC Fisheries Assessment Methodology to that used for the New Zealand Troll Fishery. As far as possible, this assessment was harmonised with the AAFA fishery, however the following differences were identified.*

Under PI 1.1.2 and the old PI 1.1.3.1, the target reference point was defined at BMSY, which was considered acceptable by the AAFA assessment team. This appears to have been estimated at around 20% B0, which under the new scoring guidance would be considered low, but this was not considered to be so by the assessment team. No specific limit reference point was identified but this was not required under the older FAM. Under FAM v2 used for this assessment, a limit reference point is required for certification, and therefore a condition has been placed on the fishery.

In the older scoring table, decision rules were spread across a number of performance indicators (PI 1.1.3.6-8). In general, it was found that decision rules were not clear or fully documented and measures to limit exploitation were not fully tested or were incomplete. This led to a condition on harvest control rules, similar but less demanding than the one imposed on the New Zealand fishery. Meeting the Condition 2 on this fishery should also meet the requirements for Condition 1 on the AAFA fishery." (Medley *et al.* 2011).

Moving on to this new AAFA South Pacific albacore troll fishery assessment, the New Zealand albacore troll fishery assessment is clearly of considerable interest. The conditions set on the New Zealand fishery were studied in detail and similar conditions placed on the AAFA fishery. The Fiji fishery is still in assessment, but the Public Comment Draft Report (PCDR) was made available for review in June 2012. The assessment team leaders have also discussed the assessments in order to promote harmonisation.

More details of the harmonisation review are provided in Table 11 on page 107 of this report. The assessment team can conclude that although there are a number of somewhat significant differences in scoring (i.e., when the score of a PI was ≥ 15 points different between fisheries, or when scores were awarded on different sides of the SG80 boundary), there were good reasons for those differences as reflected in the information provided on the fisheries.

4.3 Assessment Methodologies

This reassessment of the AAFA South Pacific albacore troll fishery used the MSC Certification Requirements Version 1.2 (MSC 2012), while the report was based on the MSC Full Assessment Reporting Template Version 1.0. No changes were made to the default assessment tree in assessing the fishery against the MSC Principles and Criteria.

4.4 Evaluation Processes and Techniques

4.4.1 Site Visits

The site visit for AAFA's South Pacific albacore troll fishery reassessment occurred from the 26th – 28th October 2011. An advertisement was previously placed in the San Diego Daily Tribune on the 26th – 28th September inclusive. The Daily Tribune was selected as a media outlet for the advertisement as a business-focussed newspaper with a readership estimated at over 50,000 people per day (EM 2012). Confirmation of the placement of the advertisement is shown in Appendix 3.

A site visit notification was also posted to the MSC website on the 14th October, as shown in Appendix 4. Because the notification was posted to the MSC website within 30 days of the site visit, alternative dates of the 23rd and 24th November were offered to stakeholders. It was not realised at the time that these alternative dates included Thanksgiving, an important US national holiday, but no stakeholders contacted the assessment team to ask for a meeting or teleconference on those dates or to ask for separate dates to be arranged.

During the site visit, meetings were held with AAFA, NMFS staff and with a member of the Pacific Fisheries Management Council. The dates, persons involved and issues discussed are shown in Table 5, below.

Table 5: Meetings conducted during the 2011 reassessment site visit.

Date	Organisation	Attending	Issues Discussed
26/10/2011	AAFA Intertek Moody Marine Ltd Intertek Moody Marine Ltd Intertek Moody Marine Ltd	Mr. Chip Bissell Dr. Rob Blyth-Skyrme Dr. Norman Bartoo Dr. Mike Laurs	• Reassessment process • AAFA fishery data • The fishing method • Albacore stock status • Stakeholder concerns • AAFA's engagement with fishery managers
27/10/2011	AAFA Intertek Moody Marine Ltd Intertek Moody Marine Ltd Intertek Moody Marine Ltd SWFSC, NOAA SWFSC, NOAA SWFSC, NOAA SWFSC, NOAA SWFSC, NOAA NMFS SW Region	Mr. Chip Bissell Dr. Rob Blyth-Skyrme Dr. Norman Bartoo Dr. Mike Laurs Dr. Dale Sweetnam Dr. John Childers Dr. Steven Teo Dr. Stephen Stohs Dr. Russ Vetter Dr. Craig Heberer	• Reassessment process • The fishing method • Albacore stock status • The stock assessment model • Bycatch in the fishery • Anchovy bait fishery • ETP species interactions • Observer coverage • Management of the fishery
27/10/2011	AAFA AAFA Intertek Moody Marine Ltd Intertek Moody Marine Ltd Intertek Moody Marine Ltd	Mrs. Natalie Webster Mr. Chip Bissell Dr. Rob Blyth-Skyrme Dr. Norman Bartoo Dr. Mike Laurs	• Reassessment process • Harmonisation • The fishing method • AAFA fishery data • Management of the fishery • AAFA's engagement with fishery managers
28/10/2011	AAFA Intertek Moody Marine Ltd Intertek Moody Marine Ltd Intertek Moody Marine Ltd PFMC	Mr. Chip Bissell Dr. Rob Blyth-Skyrme Dr. Norman Bartoo Dr. Mike Laurs Ms. Marija Vojkovich	• Reassessment process • Management of the fishery • AAFA's engagement with fishery managers

4.4.2 Consultations

A number of stakeholders who previously expressed an interest in the AAFA North Pacific fishery certification were contacted prior to the commencement of the reassessment of the AAFA South Pacific albacore fishery. Other potential new stakeholders were also contacted. The full list of those individuals and organisations contacted is contained below in Table 6.

Table 6: Stakeholders and potential stakeholders contacted by e-mail prior to the commencement of the AAFA South Pacific albacore fishery reassessment.

Date	Individual	Organisation
29/9/2010	Dr. Bill Fox	WWF
29/9/2010	John Hall	N/a
29/9/2010	Peter Flournoy	Western Fishboat Owners Association (WFOA)
29/9/2010	David Garforth	Global Trust Certification
30/9/2010	Susan Jackson	ISSF
30/9/2010	No named individual	IATTC
30/9/2010	No named individual	WCPFC
30/9/2010	Douglas Loder	Tuna Management Association of New Zealand

No stakeholders requested a meeting or teleconference with the team on either set of dates that was offered for the site visit. The World Wildlife Fund (WWF) and the International Seafood Sustainability Fund (ISSF) did, though, submit letters to the assessment team prior to the site visit; these letters are included as Appendix 7 and Appendix 8 respectively. The letter from WWF highlighted concerns regarding the absence of explicit reference points for management of the South Pacific albacore fishery, and on the structure and international nature of the albacore management regime. Similar concerns were expressed by the ISSF in their letter.

4.4.3 Evaluation Techniques

The team assessing the AAFA South Pacific albacore fishery includes individuals with a demonstrably long history of involvement in albacore fishery science and management at a senior level. As such, there was no requirement for the assessment team to acquire a working knowledge of the management operation and sea-base prior to undertaking the assessment.

The scoring process for the assessment has involved undertaking a preliminary scoring review immediately following the site visit, where initial findings were discussed. As leads for Principle 1, 2 and 3, Dr. Bartoo, Dr. Blyth-Skyrme and Dr. Laurs led the scoring discussions for those Principles respectively. The team then wrote their sections of the report and provided scores for their PIs, before each team member reviewed and confirmed their agreement with the findings and the scores awarded for the other sections. Hence, it is important to note that while each assessment team member led the assessment of the fishery for their Principle, the team as a whole has taken responsibility for the final score awarded to each PI.

With respect to setting the Conditions of Certification, the assessment team was guided by the CR V.1.2 (MSC 2012) while also closely considering the findings of the New Zealand albacore troll fishery (Medley *et al.* 2011) and the Fiji longline fishery (Akroyd *et al.* 2012).

The RBF was not used in scoring any PI of AAFA's South Pacific albacore fishery.

5 Traceability

5.1 Eligibility Date

It is intended that, if recertified, South Pacific albacore landed by the AAFA fleet will be eligible from the date on which the existing AAFA South Pacific albacore certificate expires, , which is now December 24th, 2012, having been extended by four months from August 24th 2012 (http://www.msc.org/track-a-fishery/certified/pacific/aafa-pacific-albacore-tuna-north/reassessment-downloads-1/20120918_Var_Resp_TUN3.pdf). This would maintain continuity in the fishery and allow for the AAFA to maintain an unbroken period of certification.

5.2 Traceability within the Fishery

Traceability within the AAFA South Pacific albacore fishery is considered to be excellent. All albacore are landed as blast or brine frozen whole fish, and no processing takes place at sea. The limit of identification of landings is the landing of albacore by AAFA member vessels, or other US pole and troll vessels identified by AAFA as being part of the certified fishery.

The certified South Pacific albacore fishery covers the South Pacific albacore stock wherever it occurs and, while albacore are taken in the North Pacific, including by AAFA members, the AAFA North Pacific albacore fishery is currently certified and is seeking recertification, while the seasons for the two fisheries are distinct and vessels must transit thousands of miles from the North Pacific pole and troll fishery that occurs off the US West Coast in order to fish on the South Pacific grounds. As such, there is considered to be very little incentive or potential for fish other than South Pacific albacore to enter the South Pacific albacore chain of custody.

In addition to MSC certification, AAFA is consistently focused on aspects of fish product quality, and, because of that, every landing is coded and can be traced back to a specific vessel and date of landing, so allowing any quality concerns to be resolved quickly. This tracing supports the view that there is almost no potential for non-certified fish to be introduced to the supply chain.

5.3 Eligibility to Enter Further Chains of Custody

In 2011, 1 vessel participated in the AAFA South Pacific albacore fishery, and that vessel landed at one of the unloading station on the Washington, Oregon and California coasts, where appropriate recording and monitoring of catches takes place. For 2011, the unloading stations were identified as:

- Bornstein Seafood
- Caito Fisheries
- Coos Bay Trawlers Marketing Division
- Deep Water Seafood
- Driscoll's Wharf
- Trident Seafoods
- Western Fish Co.
- Westbay Marketing
- Westport Seafood

Fishery products are certified up to the point of landing, but will be eligible to enter further certified chains of custody.

6 Evaluation Results

6.1 Principle Level Scores

Table 7: Final Principle Scores

Final Principle Scores	
Principle	**Score**
Principle 1 – Target Species	81.9
Principle 2 - Ecosystem	92.7
Principle 3 – Management System	92.9

6.2 Summary of Scores

Prin-ciple	Wt (L1)	Component	Wt (L2)	PI No.	Performance Indicator (PI)	Wt (L3)	Weight in Principle	Score
One	1	Outcome	0.5	1.1.1	Stock status	0.5	0.25	100
				1.1.2	Reference points	0.5	0.25	70
				1.1.3	Stock rebuilding			-
		Management	0.5	1.2.1	Harvest strategy	0.25	0.125	80
				1.2.2	Harvest control rules & tools	0.25	0.125	60
				1.2.3	Information & monitoring	0.25	0.125	90
				1.2.4	Assessment of stock status	0.25	0.125	85
Two	1	Retained species	0.2	2.1.1	Outcome	0.333	0.0667	100
				2.1.2	Management	0.333	0.0667	100
				2.1.3	Information	0.333	0.0667	95
		Bycatch species	0.2	2.2.1	Outcome	0.333	0.0667	100
				2.2.2	Management	0.333	0.0667	90
				2.2.3	Information	0.333	0.0667	80
		ETP species	0.2	2.3.1	Outcome	0.333	0.0667	85
				2.3.2	Management	0.333	0.0667	80
				2.3.3	Information	0.333	0.0667	80
		Habitats	0.2	2.4.1	Outcome	0.333	0.0667	100
				2.4.2	Management	0.333	0.0667	100
				2.4.3	Information	0.333	0.0667	100
		Ecosystem	0.2	2.5.1	Outcome	0.333	0.0667	100
				2.5.2	Management	0.333	0.0667	80
				2.5.3	Information	0.333	0.0667	100
Three	1	Governance and policy	0.5	3.1.1	Legal & customary framework	0.25	0.125	95
				3.1.2	Consultation, roles & responsibilities	0.25	0.125	100
				3.1.3	Long term objectives	0.25	0.125	100
				3.1.4	Incentives for sustainable fishing	0.25	0.125	80
		Fishery specific management system	0.5	3.2.1	Fishery specific objectives	0.2	0.1	100
				3.2.2	Decision making processes	0.2	0.1	90
				3.2.3	Compliance & enforcement	0.2	0.1	90
				3.2.4	Research plan	0.2	0.1	100
				3.2.5	Management performance evaluation	0.2	0.1	80

6.3 Summary of Conditions

Table 8: Summary of Conditions

Condition number	Condition	Performance Indicator
1	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if the limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity, and if the target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome.	**1.1.2**
2	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached, the selection of the harvest control rules takes into account the main uncertainties, and available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	**1.2.2**

6.3.1 Non-Binding Recommendation

1) It is noted that seabird protection measures are specified for longline vessels fishing under the US West Coast HMS FMP as amended (PFMC 2007b). However, these do not apply to the US South Pacific albacore troll fleet, which can be taken as a reflection of the very low risk that is deemed to be posed by these gear types to seabird species. However, it would be good practice for AAFA members to be provided with and to follow the guidance for seabird handling, as required by longline vessels, in the very rare event that a seabird was taken aboard an AAFA vessel.

6.4 Determination, Formal Conclusion and Agreement

At the Public Consultation Draft Report stage, the assessment team considers that AAFA's South Pacific albacore troll/jig fishery should be recertified. A formal determination and conclusion will be provided at a later stage of the assessment process.

The report shall include a formal statement as to the certification action taken by the CAB's official decision-makers in response to the Determination recommendation.

NB- To be completed at a later stage.

7 References

- Akroyd, J., Huntington, T. & McLoughlin, K. (2012). MSC assessment report for Fiji albacore tuna longline fishery, Version 3, Public Comment Draft Report, June 2012. Intertek Moody Marine, Derby, UK. 277 pp.

- Anonymous (2011). NOAA Policy for Assessment of Penalties and Permit Sanctions – March 16, 2011 56pp.

- Argue, A.W., Conand, F. & D. Whyman (1983). Spatial and temporal distributions of juvenile tunas from stomachs of tunas caught by pole-and-line gear in the central and western Pacific Ocean. South Pacific Commission, Tuna and Billfish Assessment Programme, Technical Report No. 9, 47 pp.

- Bailey, K.N. (1986). A preliminary analysis of the stomach contents of albacore, *Thunnus alalunga*, from the Subtropical Convergence Zone east of New Zealand. Paper presented at the First South Pacific Albacore Research (SPAR) Workshop, 9-12 June 1986, Auckland, New Zealand. South Pacific Commission, WP/17.

- Bailey, K.N., & G. Habib (1982). Food of incidental fish species taken in the purse-seine skipjack fishery, 1976-81. Occasional Publications of the Fisheries Research Division, New Zealand Ministry of Agriculture and Fisheries, Data Series, No. 6, 24 pp.

- Bigelow, K. A. and Hoyle, S. D. (2008). Standardized CPUE for distant-water fleets targeting south Pacific albacore. No. WCPFC SC4 ME-WP-3.

- Campbell, R. (2009). The use of Reference Points in Fisheries Management: A short review. Scientific Committee Fifth Regular Session,10-21 August 2009 Port Vila, Vanuatu. WCPFC-SC5-2009/ME-IP-01

- Childers, J. (2004). Summary of the 2003 US North and South Pacific albacore troll fisheries. Administrative report LJ-04-05, National Marine Fisheries Service, Southwest Fisheries Science Center, La Jolla, August 2004, 31 pp.

- Childers, J. & S. Aalbers (2006). Summary of the 2006 US North and South Pacific albacore troll fisheries. Administrative report LJ-06-06, National Marine Fisheries Service, Southwest Fisheries Science Center, La Jolla, July 2006, 28 pp.

- Childers, J., Snyder, S. & Kohin, S. (2011). Migration and behaviour of juvenile North Pacific albacore (*Thunnus alalunga*). Fisheries Oceanography, V. 20, pp. 157-173.

- Clemens, H.B. (1961). The Migration, Age, And Growth of Pacific Albacore (Thunnus germo), 1951–1958 Cal. Dept. Fish and Game Fish Bulletin No. 115, 128pp.

- Darcy, G.H., and G.C. Matlock (1999). Application of the precautionary approach in the national standard guidelines for conservation and management of fisheries in the United States. ICES Journal of Marine Science, V. 56, pp. 853-859.

- Dotson, R.C. (1980). Fishing methods and equipment of the US west coast albacore fleet. US Dep. Commer., NOAA Tech. Memo., NOAA-TM-NWS-SWFC-8, 126pp

- EM (2012). San Diego Daily Transcript- http://www.echo-media.com/mediaDetail.php?ID=13146. Echo Media. Accessed 13th January, 2012.

- Fournier, D.A., Hampton, J. and Sibert, J.R. (1998) MULTIFAN-CL: a length-based, age-structured model for fisheries stock assessment, with application to South Pacific albacore, *Thunnus alalunga*. Canadian Journal of Fisheries and Aquatic Sciences, V. 55, pp. 2105- 2116.

- Griggs, L.H. (2008) Monitoring the length structure of commercial landings of albacore (*Thunnus alalunga*) during the 2006-07 fishing year. New Zealand Fisheries Assessment Report, Ministry of Fisheries, 2008/050.

- Jones M. and Shallard, B. (2009) Final Report on Causes of Data Gaps. 29 October 2008. FINNZ. WCPFC-SC5-2005/ST-WP-02

- Langley, A. D. and Hoyle, S. D. (2008). Report from the stock assessment preparatory workshop, Noumea, February 2008. No. WCPFC SC4 SA-IP-5 (SPC: Nouméa, New Caledonia.)

- Hampton, J. and Harley, S. (2009) Assessment of the potential implications of application of CMM-2008-01 for bigeye and yellowfin tuna. WCPFC-SC5-2009/GN-WP-17

- Hampton, J., Murray, T. & K. Bailey (1991). South Pacific albacore observer programme on troll vessels, 1989–1990. South Pacific Commission, Tuna and Billfish Assessment Programme, Technical Report No. 25, 25 pp.

- Harley, S.J., Davies, N. & S.D. Hoyle (2009). Report from the SPC pre-assessment workshop, Noumea, April 2009. Scientific Committee Fifth Regular Session, 10-21 August 2009, Port Vila, Vanuatu. WCPFC-SC5-2009/SA- IP-1

- Harley, S.J., Hoyle, S.D., Hampton, J. & P. Kleiber (2009) Characteristics of Potential Reference Points for Use in WCPFC Tuna Stock Assessments. WCPFC-SC5-2009/MEWP- 02.

- Hoyle, S. (2008). Adjusted biological parameters and spawning biomass calculations for south Pacific albacore tuna, and their implications for stock assessments. WCPFC SC4 ME-WP-2.

- Hoyle, S. (2011). Stock assessment of albacore tuna in the South Pacific Ocean. Scientific Committee Seventh Regular Session, 9-17 August 2011, Pohnpei, Federated States of Micronesia, WCPFC-SC7-2011/SA-WP-06.

- Hoyle S. D. & Davies N. (2009). Stock assessment of albacore tuna in the South Pacific Ocean. Scientific Committee, Fifth Regular Session, 10-21 August 2009, Port Vila, Vanuatu. WCPFCSC5-2009/SA-WP-6.

- Hoyle, S., Fournier, D., Kleiber, P., Hampton, J., Bouyé, F., Davies, N., and Harley, S. (2009) Update of Recent Developments in MULTIFAN-CL and Related Software for Stock Assessment. WCPFC-SC5-2009/SA- IP-07.

- Hoyle S. D., Langley A. D., & Hampton W. J. (2008). Stock assessment of Albacore tuna in the South Pacific Ocean. Scientific Committee Fourth Regular Session; Nouméa, New Caledonia, Secretariat of the Pacific Community. WCPFC Scientific Committee. WCPFC-SC4-2008/ SAWP-8a.

- Jones M. & B. Shallard (2009) Final report on causes of data gaps. 29 October 2008. FINNZ. WCPFC-SC5-2005/ST-WP-02.

- Kendrick, T.H. & N. Bentley (2010). Indices of albacore abundance from the west coast troll fishery, 1989–90 to 2007–08. New Zealand Fisheries Assessment Report 2010/45, November 2010. Trophia limited, Kaikoura, New Zealand, 33 pp.

- Kiladis, G.N., H. Von Storch & H. Van Loon (1989). Origin of the South Pacific Convergence Zone. Journal of Climate, V.2, pp. 1185–1195.

- Kitchell, J.F., Boggs, C.H., He, X. & C.J. Walters (1999). Keystone predators in the Central Pacific. In, Proceedings of the Symposium on Ecosystem Considerations in Fisheries Management, September 30 – October 3, 1998, Anchorage Alaska. University of Alaska Sea Grant College Program, AK-SG-99-01, 1999, pp. 665-683.

- Labelle, M. (1993). A review of the South Pacific albacore troll fishery 1985 – 1992. Tuna and billfish assessment programme, South Pacific Commission. Technical Report No. 32, Noumea, New Caledonia. 32 pp.

- Laurs, R.M. 1986. US albacore trolling exploration conducted in the South Pacific during February–March, 1986. NOAA Technical Memorandum, NMFS-SWFC, La Jolla, No. 66.

- Laurs, R.M., Fiedler, P.C. & D.R. Montgomery (1984). Albacore tuna catch distributions relative to environmental features observed from satellites. Deep-Sea Research, V.31, pp. 1085–1099.

- Laurs, R.M., Bliss, K., Wetherall, J. & B. Nishimoto (1987). South Pacific albacore fishery exploration conducted by US jig boats during early 1987. NOAA Administrative Report, NMFS-SWFC, La Jolla, LJ-87-22. 31 pp.

- Laurs, R.M. and R.J. Lynn (1977). Seasonal migration of North Pacific albacore, *Thunnus alalunga*, into north American coastal waters: distribution, relative abundance, and association with transition zone waters. Fishery Bulletin V. 75, pp. 795-822.

- Medley, P., Tingley, G., Akroyd, J., Hough, A. & S. Davies (2011). MSC assessment report for the New Zealand albacore tuna troll fishery, public certification report v.5. Moody Marine Ltd., Derby, UK. 229 pp.

- MRAG (2009). Final Report on Independent Review of the Commission's Transitional Science Structure and Functions. WCPFC-SC5-2009/GN-WP-7.

- MSC (2011). Guidance to the MSC certification requirements, version 1.0, August 15 2011. Marine Stewardship Council, London. 186 pp.

- MSC (2012). MSC certification requirements, version 1.2, 10 January 2012. Marine Stewardship Council, London. 301 pp.

- Murray, T. (1993). A review of the biology and fisheries for albacore, *Thunnus alalunga*, in the South Pacific Ocean. In, Shomura, R.S., Majkowski, J. & S. Langi (eds.). Interactions of Pacific tuna fisheries. Proceedings of the first FAO Expert Consultation on Interactions of Pacific Tuna Fisheries. 3-11 December 1991. Noumea, New Caledonia. Volume 2: papers on biology and fisheries. FAO Fisheries Technical Paper. No. 336, Vol.2. Rome, FAO. 1993, pp. 188-206.

- NMFS (1991). Final recovery plan for the humpback whale (*Megaptera novaeangliae*). Prepared by the Humpback Whale Recovery Team for the National Marine Fisheries Service, Silver Spring, Maryland. 105 pp.

- NMFS (1997). Recovery plan for US Pacific populations of the hawksbill turtle (*Eretmochelys imbricata*). National Marine Fisheries Service, Silver Spring. 83 pp.

- NMFS (1998a). Recovery plan for US Pacific populations of the East Pacific green turtle (*Chelonia mydas*). National Marine Fisheries Service, Silver Spring. 61 pp.

- NMFS (1998b). Recovery plan for US Pacific populations of the leatherback turtle (*Dermochelys coriacea*). National Marine Fisheries Service, Silver Spring. 77 pp.

- NMFS (1998c). Recovery plan for US Pacific populations of the loggerhead turtle (*Caretta caretta*). National Marine Fisheries Service, Silver Spring. 72 pp.

- NMFS (1998d). Recovery plan for US Pacific populations of the olive ridley turtle (*Lepidochelys olivacea*). National Marine Fisheries Service, Silver Spring. 63 pp.

- NMFS (2004). Endangered Species Act section 7 consultation- Biological opinion on the adoption of the proposed Highly Migratory Species Fishery Management Plan. National Marine Fisheries Service, Southwest Region. 291 pp.

- NMFS (2008c). Implementation of Title IV of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Acto of 2006; Progress report to the NOAA Assistant Administrator for Fisheries. Office of International Affairs, National Marine Fisheries Service, Silver Spring, Maryland. January 2008. 87 pp.

- NMFS (2011a). US National Bycatch Report, First edition, revised 16 September 2011. Editors: W.A. Karp, L.L. Desfosse & S.G. Brooke. NOAA Techmical Memorandum, NMFS-F/SPO-117C. 508 p.

- NMFS (2012). High seas South Pacific albacore troll fisheries. http://www.nmfs.noaa.gov/pr/pdfs/fisheries/lof2012/south_pacific_albacore_troll_highseas.pdf. Accessed 22nd February 2012.

- NOAA (2011a). List of fisheries for 2012. National Oceanic and Atmospheric Administration, Federal Register, V. 76, No. 229, November 29, 2011, pp. 73912 – 73953.

- NOAA (2011b). Federal Regulations, Title 50: Wildlife and Fisheries, Part 660, CFR 223.206(d)(1). National Oceanic and Atmospheric Administration. http://ecfr.gpoaccess.gov/cgi/t/text/text-

idx?c=ecfr;sid=f4cb71ce126d32e75c9bc21398ee4bf1;rgn=div8;view=text;node=50%3A9.0.1.3.7.2.13.6;idno=50;cc=ecfr. Accessed 21st January 2012.

- NZDOC (2012). Threats to Southern right whale. New Zealand Department of Conservation. http://www.doc.govt.nz/conservation/native-animals/marine-mammals/whales/southern-right-whales-tohora/threats/. Accessed 20th January, 2012.

- PFMC (2007a). Fishery management plan for US West Coast fisheries for highly migratory species, as amended; Appendix C: Bycatch of fish in HMS fisheries. Pacific Fisheries Management Council, Portland, June 2007. 51 pp.

- PFMC (2007b). Fishery management plan for US West Coast fisheries for highly migratory species, as amended; Appendix D: Interactions with protected species. Pacific Fisheries Management Council, Portland, June 2007. 25 pp.

- PFMC (2011a). Fishery management plan for US West Coast fisheries for highly migratory species, as amended through amendment 2. Pacific Fisheries Management Council, Portland, July 2011. 106 pp.

- PFMC (2011b). Status of the US West Coast fisheries for highly migratory species through 2010. Stock assessment and fishery evaluation, September 2011. Pacific Fishery Management Council, Portland. 164 pp.

- Powers, J., Laurs, M. & P. Knapman (2008). Surveillance report 1, American Albacore Fishing Association (AAFA) South Pacific albacore pole & line and troll/jig fishery. Moody Marine Ltd., December 2008. 13 pp.

- Powers, J., Laurs, M., Blyth-Skyrme, R. & P. Knapman (2010). Surveillance report 3, American Albacore Fishing Association (AAFA) North Pacific albacore pole & line and troll/jig fishery. Moody Marine Ltd., November 2010. 21 pp.

- Preece, A., Hillary, R. & C. Davies (2011). Identification of candidate limit reference points for the key target species in the WCPFC. Scientific Committee, Seventh Regular Session, Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean; Pohnpei, Federated States of Micronesia; 9 – 17 August, 2011. 38 pp.

- Preece, A., Kolody, D., Davies, C. & J. Hartog (2009). Management strategy evaluation for Australia's east coast tuna and billfish fishery: progress update. WCPFC-SC5- 2009/SA-WP-8

- Reeves, R.R., Clapham, P.J., Brownell, Jr., R.L. & G.K. Silber (1998). Recovery plan for the blue whale, *Balaenoptera musculus*. Prepared for the Office of Protected Resources, National Oceanic and Atmospheric Administration, Silver Spring. 42 pp.

- Roberts, P.E. (1980). Surface distribution of albacore tuna, *Thunnus alalunga* Bonnaterre, in relation to the Subtropical Convergence Zone east of New Zealand. New Zealand Journal of Marine and Freshwater Research, V.14, pp. 373–380.

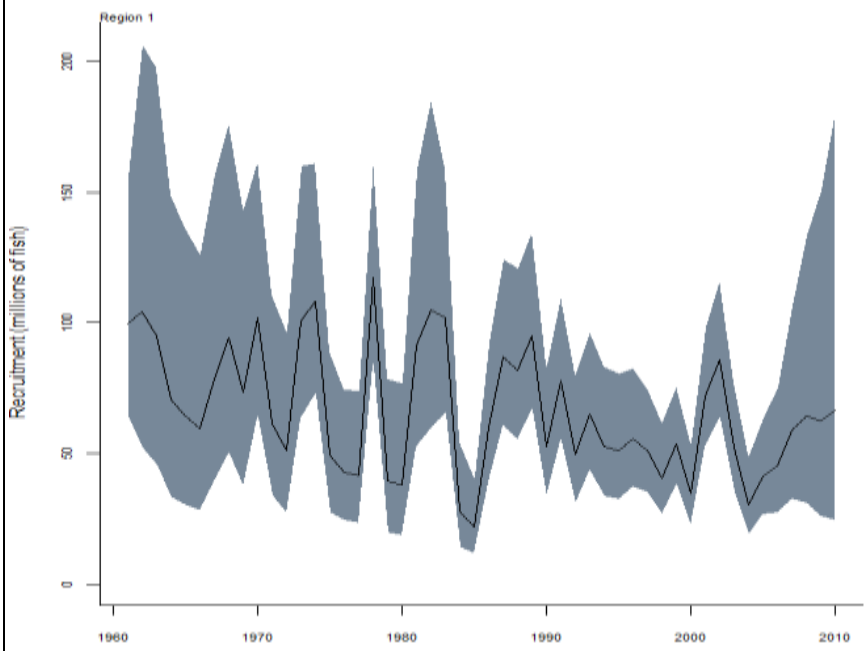
- Small, C.J. (2005). Regional Fisheries Management Organisations: their duties and performance in reducing bycatch of albatrosses and other species. BirdLife International, Cambridge, UK. 103 pp.
- Tomczak, M. & J.S. Godfrey (1994). Regional oceanography: an introduction. Pergamon, 422 pp.
- Unwin, M., Richardson, K., Uddstrom, M., Griggs, L., Davies, N. & F. Wei (2005). Standardized CPUE indices for longline- and troll-caught albacore tuna in the New Zealand EEZ, 1993-2004. WCPFC-SC-2005: SA WP-5
- USFWS (2009). US Fish and Wildlife Service- Federal Register, V. 74, pp. spotlight species action plan- marbled murrelet. US Fish and Wildlife Service, Portland. 4 pp. 46914 – 46930.
- USFWS (2012a). http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A02O. Accessed 10th January, 2012.
- USFWS (2012b). http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A02S. Accessed 10th January, 2012.
- USFWS (2012c). http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A02T. Accessed 10th January, 2012.
- USFWS (2012d). http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0A8. Accessed 10th January, 2012.
- WCPFC (2005) Conservation and Management Measure for South Pacific albacore. Conservation and Management Measure-2005-02. Ministry of Fisheries Draft fisheries plan for Highly Migratory Species June 2009
- WCPFC (2008a). Approaches for identification of appropriate reference points and implementation of MSE within the WCPO: an overview and response to issues from SC 4.
- WCPFC (2008b). Summary Report. The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Scientific Committee. Fourth Regular Session, 11-22 August 2008, Port Moresby, Papua New Guinea.
- WCPFC (2008c). Fifth Regular Session of the WCPFC. 8-12 December 2008. Bussan, Republic of Korea. (http://wcpfc.org).
- WCPFC (2009a). Summary Report (Draft). Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean Scientific Committee. Fifth Regular Session. Port Vila, Vanuatu. 10–21 August 2009.
- WCPFC-SC (2009b) New Zealand. Annual Report to the Commission. Part 1: Information on Fisheries, Research, and Statistics. WCPFC-SC5-AR/CCM-15
- WCPFC (2011a). Tuna fishery yearbook, 2010. Western and Central Fisheries Commission, Pohnpei, Federated States of Micronesia. 121 pp.

- WCPFC (2011b). Annual report to the Commission, Part 1: information on fisheries, research and statistics, United States of America. Scientific Committee, seventh regular sessions. WCPFC-SC7-AR/CCM-26, Rev.3-06 September 2011. 47 pp.
- WCPFC (2011c). Scientific Committee, seventh regular session- summary report. Pohnpei, Federated States of Micronesia, 9-17 August 2011. 198 pp.
- Williams, P. & P. Terawasi (2009). Overview of Tuna Fisheries in the Western and Central Pacific Ocean, Including Economic Conditions – 2008. WCPFC-SC5-2009/GN WP-1

Appendices

Appendix 1: Performance Indicator Scores and Rationales

Evaluation Table PI 1.1.1

PI 1.1.1		The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	It is **likely** that the stock is above the point where recruitment would be impaired. The fishery meets the SG 100 level.
80	**a**	**Y**	It is **highly likely** that the stock is above the point where recruitment would be impaired. The fishery meets the SG 100 level.
	b	**Y**	The stock is at or fluctuating around its target reference point. The fishery meets the SG 100 level.
100	**a**	**Y**	There is a **high degree of certainty** that the stock is above the point where recruitment would be impaired. The most recent assessment (2011) and the previous assessment (2009) determined that overfishing is not occurring and the stock is not in an overfished state. Estimates of mean (2005-2007) SSB/SSBMSY (from 1.7 to 4.9) are quite variable between model configurations, but all indicate that the stock is well above the MSY reference point. The current value is 2.25. There is no indication that recruitment is threatened.  **Figure A:** Annual recruitment (number of fish) estimates. The grey area represents parameter uncertainty estimated from the Hessian matrix (Hoyle 2011).

PI 1.1.1			The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing
			Estimated annual recruitment from the early 1960's to the present from the current assessment is shown above in Figure A, which shows year to year variation around a relatively stable or slightly declining inter-decadal mean over the last 25 years, with an increase in the most recent 5 year period.
	b	**Y**	There is a **high degree of certainty** that the stock has been fluctuating around its target reference point, or has been above its target reference point, **over recent years**.
			The most recent assessment (2011) and the previous assessment (2009) determined that overfishing is not occurring and the stock is not in an overfished state. Estimates of mean (2005-2007) SSB/SSBMSY (from 1.7 to 4.9) are quite variable between model configurations, but all indicate that the stock is well above the MSY reference point. The current value (2007-2009) is 2.25. Although there is some uncertainty in the biological parameters incorporated in the assessment model (M and sex related growth), there is no indication that recruitment is currently threatened and the fishery meets this level of performance.
References			Hoyle (2011), Hoyle *et al.*, (2008), Hoyle & Davies (2009)

Stock Status relative to Reference Points			
	Type of reference point	**Value of reference point**	**Current stock status relative to reference point**
Target reference point	F_{MSY}	The dimensionless value of $F_{CURRENT}/F_{MSY}$	The ratio of $F_{2007\text{-}2009}$ / F_{MSY} = 0.26, indicating the current average Fishing mortality is substantially lower than the MSY associated F. This is consistent with previous assessments.
Limit reference point	B_{MSY}	Equilibrium total biomass at MSY in t.	The current B_{MSY} (2007-2009) is 605,900 t. The ratio of $B_{2007\text{-}2009}/B_{MSY}$ = 1.26 indicating the stock is at 126% of B_{MSY}.

OVERALL PERFORMANCE INDICATOR SCORE:	**100**
CONDITION NUMBER (if relevant):	**N/A**

Evaluation Table: PI 1.1.2

PI 1.1.2			Limit and target reference points are appropriate for the stock
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Generic limit and target reference points are based on justifiable and reasonable practice appropriate for the species category.
			B_{MSY} and F_{MSY} have been identified for this fishery, Identification of limit reference points based on this is therefore also possible, but management focuses on maintaining the stock at or above MSY. The 60 SG requirement is therefore met.
80	**a**	**Y**	Reference points are appropriate for the stock and can be estimated.
			There are two central reference points B_{MSY} and F_{MSY} which are estimated within the stock assessment. The assessment uses the dimensionless $B_{CURRENT}/B_{MSY}$ and $F_{CURRENT}/F_{MSY}$ to determine status. The MSY levels, on which management reference points are implicitly defined, take account of the knowledge of the biology of the stock. Where uncertainty exists (such as with the stock recruitment relationship steepness), precautionary values have been used. The reference points are adequate for evaluating the stock status
	b	**N**	The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity.
			Although implied by MSY estimates and stock evaluation, without a formally defined limit reference point the risks of impairing reproductive capacity have not been adequately recognized by the management authority (primarily WCPFC). B_{MSY} is defined and this therefore defines a limit region which management has the objective of avoiding. Using an implicit reference point, it is possible to assess whether recruitment is put at risk and therefore define the region within which this point would be defined
	c	**N**	The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome.
			The target reference region is to maintain biomass at, or above, that required for MSY. This is consistent with the MSC requirement, but without a clearer definition of how much higher than MSY and without explicitly taking into account uncertainty, the higher guidepost cannot be met.
	d	**N/A**	Key low trophic level species, the target reference point takes into account the ecological role of the stock.
			Albacore tuna is not a low trophic level species and so this scoring issue has not been scored.
100	**b**	**N**	The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity following consideration of **precautionary issues**.
			The fishery does not meet this level of performance.
	c	**N**	The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome, or a **higher level**, and takes into account relevant precautionary issues such as the ecological role of the stock with a **high degree of certainty.**
			The fishery does not meet this level of performance.
References			Campbell 2009, Harley *et al.* 2009, Hoyle *et al.* 2008, Hoyle & Davies 2009, Hoyle 2011, WCPFC 2008a, WPCFC 2008b, WCPFC 2008c.

PI 1.1.2		Limit and target reference points are appropriate for the stock	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
OVERALL PERFORMANCE INDICATOR SCORE:			**70**
CONDITION NUMBER (if relevant):			**1**

Evaluation Table: PI 1.1.3

PI 1.1.3		Where the stock is depleted, there is evidence of stock rebuilding	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	N/A	Where stocks are depleted rebuilding strategies which have a reasonable expectation of success are in place. The stock is not considered to be depleted, and so this performance indicator is not scored.
	b		A rebuilding timeframe is specified for the depleted stock that is the shorter of 30 years or 3 times its generation time. For cases where 3 generations is less than 5 years, the rebuilding timeframe is up to 5 years.
	c		Monitoring is in place to determine whether they are effective in rebuilding the stock within a **specified** timeframe.
80	**a**		Where stocks are depleted rebuilding strategies are in place.
	b		A rebuilding timeframe is specified for the depleted stock that is the shorter of 20 years or **2 times its generation time**. For cases where 2 generations is less than 5 years, the rebuilding timeframe is up to 5 years.
	c		There is **evidence** that they are rebuilding stocks, or it is **highly likely** based on simulation modeling or previous performance that they will be able to rebuild the stock within a **specified** timeframe.
100	**a**		Where stocks are depleted, strategies are demonstrated to be rebuilding stocks continuously and there is strong evidence that rebuilding will be complete **within the specified timeframe**.
	b		The shortest practicable rebuilding timeframe is specified which does not exceed **one generation** time for the depleted stock.
References			N/A
OVERALL PERFORMANCE INDICATOR SCORE:			**N/A**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 1.2.1

PI 1.2.1		There is a robust and precautionary harvest strategy in place	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	The harvest strategy is **expected** to achieve stock management objectives reflected in the target and limit reference points. Both the WCPFC and the IATTC have adopted management measures for this stock (IATTC resolution C-05-02; WCPFC Conservation and Management Measure (CMM) 2010-05). The fishery meets this scoring issue at the SG80 level.
	b	**Y**	The harvest strategy is **likely** to work based on prior experience or plausible argument. Stock assessments are carried out on a biannual or annual basis, which is relatively frequent given the longevity of the species and current level of exploitation. A stock assessment has been repeated annually over the last few years, and the assessment has shown significant changes as it has been developed and improved. The countries responsible submit data for inclusion in the stock assessment, and compliance with this data provision is good, although uncertainties remain due to a lack of additional information required to interpret the basic data. The stock assessment is completed after a pre-assessment workshop which reviews the assessment and guides development. The WCPFC has adopted an effort limitation (vessel numbers) using the base years 200-2004. Effort limitations have been used successfully for tunas (IATTC yellowfin and bigeye tunas) and other fisheries to control fishing mortality and to maintain stocks at sustainable levels. In this fishery, there is good evidence since the measures were introduced that effort levels have been maintained and that the stock has not been overfished as a result. The fishery meets this scoring issue at the SG80 level.
	c	**Y**	Monitoring is in place that is expected to determine whether the harvest strategy is working. Annual data compilations and assessments are reviewed by both the IATTC and WCPFC. Data monitoring requirements are in place for all WCPFC members. For the US fishery, the PFMC maintains comprehensive landings data (PacFIN). US vessels fishing for albacore must comply with Federal logbook reporting requirements.
80	**a**	**Y**	The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy **work together** towards achieving management objectives reflected in the target and limit reference points. The scientific advice produced from recent assessments has remained broadly the same. Countries undertake to control catches mainly through effort limits and limits on capacity (i.e. number of vessels targeting albacore). Attempts are being made to estimate biomass which could lead to a national quota system based on catch or effort, or similar procedures. However, the current system is a long way from this, and management is currently conducted through a relatively crude control. Given the state of the stock, this is currently adequate and the fishery meets the SG80 level of performance. At its second annual meeting the WCPFC passed a Conservation and Management Measure (this is a binding measure that all parties must abide by) stating that Commission Members, Cooperating Non-Members, and participating Territories (CCMs) shall not increase the number of their fishing vessels actively fishing for South Pacific albacore in the Convention Area south of 20°S above 2000-2005 levels. The IATTC has passed a compatible management measure.
	b	**Y**	The harvest strategy may not have been fully tested but monitoring is in place and evidence exists that it is achieving its objectives.

PI 1.2.1		There is a robust and precautionary harvest strategy in place	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			The stock assessment (using best available data) provides an independent assessment of the effectiveness of management in controlling spawning stock biomass and limiting the exploitation rate. No management strategy evaluations have been conducted, and uncertainty has been reported as part of the stock assessment. It is not yet clear, though, how this is being incorporated into the decision-making process. As noted in Section 3.3.3, the catch rates in some South Pacific albacore longline fleets appear to have been declining recently (typical of most maturing longline fisheries), with high overall catches. As a result, the Fiji longline albacore fishery that is being concurrently MSC assessed is scoring this PI at 70, with the Fiji fishery assessment team considering that that fishery does not meet the level of performance required to meet the MSC standard for this SI. However, the AAFA fishery occurs in different, more southerly waters than Fiji fishery, and the albacore stock component harvested by the AAFA fishery comprises smaller and younger (i.e., pre-adult) fish than those taken in the Fiji fishery. The AAFA fish are much more similar to those taken by the New Zealand fishery that was scored 80 for this PI in 2011 (see Medley *et al.*, 2011), while there has been a negligible increase in annual fishing mortality on juvenile albacore between the 2004-2005 reference period and the present time (Fig 38, Hoyle *et al*. 2012) and a negligible decline in total biomass or spawning potential of the South Pacific albacore stock due to the impact of fishing mortality in the troll fishery (Fig. 42, Hoyle *et al.* 2012). As such, and because the South Pacific albacore stock is still considered to be not overfished and not experiencing overfishing, the IMM assessment team considers that a score of 80 is also appropriate for the AAFA fishery. The evidence shows that the fishery meets this level of performance.
100	**a**	**N**	The harvest strategy is responsive to the state of the stock and is **designed** to achieve stock management objectives reflected in the target and limit reference points.
			Target and limit reference points have not been formally adopted, and so it cannot be said that the harvest strategy is designed to achieve stock management objectives reflected in the target and limit reference points. As such, the fishery cannot meet this level of performance.
	b	**N**	The performance of the harvest strategy has been **fully evaluated** and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels.
			The lack of a formally adopted harvest strategy means that the fishery does not meet this level of performance.
	d	**N**	The harvest strategy is periodically reviewed and improved as necessary.
			An external review of the management process has been undertaken, which found the WCPFC management system was sound, but with a number of shortcomings which the authors addressed through recommendations. However, this cannot be called a 'periodic' review, and so the fishery does not meet this level of performance.
References			Campbell 2009, Hampton & Harley 2009, Harley *et al.* 2009, Hoyle *et al*. 2012, Preece *et al.* 2009, WCPFC 2005, MRAG 2009, WCPFC 2009a, WCPFC 2009b.
OVERALL PERFORMANCE INDICATOR SCORE:			**80**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 1.2.2

PI 1.2.2		There are well defined and effective harvest control rules in place	
SG	**Issue**	**Met? (Y/N)**	Justification/Rationale
60	**a**	**Y**	**Generally understood** harvest rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached.
			The harvest control rule is generally understood as reducing harvest when the stock approaches or falls below the MSY point. However, the precise point when action will be taken and exactly what action will be taken is not defined, but would be proposed by the Commission based on the advice of the Scientific Committee at the time. This would likely be similar to the advice currently given, which is based around controlling fishing effort and capacity. An example of this approach is provided for big-eye tuna which is more heavily exploited. The scientific basis for decision making is well established and documented. The harvest control rules are currently based on B/B_{MSY} and F/F_{MSY} benchmarks. The overarching harvest control rule to maintain stocks at or above MSY has been established and codified by the Commissions. Thus, this harvest control rule is generally consistent with reference points from the assessment and the limitations of data that are inputs to the assessment.
	c	**Y**	There is **some evidence** that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.
			Tools, should they be needed, can be initiated through the IATTC and WCPFC. Currently, measures are in place in the Commissions to prevent increases of fishing effort on albacore. This is exemplified by the Conservation and Management Measure WCPFC-CMM-03 which went into place on Feb 16, 2006. Comparable actions have been taken by IATTC and WCPFC for other species (such as yellowfin and bigeye tunas), and evidence exists that some control is being exerted over the exploitation of these stocks.
80	**a**	**N**	**Well defined** harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.
			The harvest control is consistent with the aims of the harvest strategy standard and indicates that the exploitation rate will be reduced once the stock approaches B_{MSY}. However, the lack of a well-defined harvest control rule prevents assessment of how precautionary it is or whether current tools are adequate in applying the rule, so the performance indicator is unable to meet the SG 80 requirements.
	b	**N**	The **selection** of the harvest control rules takes into account the **main** uncertainties.
			No formal harvest control rules are in place, and so the fishery cannot meet this level of performance.
	c	**N**	**Available evidence indicates** that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.
			The control rules cannot be evaluated because they are not yet formally adopted, and so the fishery cannot meet this level of performance.
100	**a**	**N**	**Well defined** harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.
			The fishery does not meet this level of performance.

PI 1.2.2		There are well defined and effective harvest control rules in place	
SG	**Issue**	**Met? (Y/N)**	Justification/Rationale
	b	**N**	The **design** of the harvest control rules takes into account a **wide range** of uncertainties.
			The fishery does not meet this level of performance.
	c	**N**	**Evidence clearly shows** that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.
			The fishery does not meet this level of performance.
References			Campbell 2009, Hoyle 2011, Hoyle *et al.* 2008, Preece *et al.* 2009, WCPFC 2008a, WCPFC 2008c.
OVERALL PERFORMANCE INDICATOR SCORE:			**60**
CONDITION NUMBER (if relevant):			**2**

Evaluation Table: PI 1.2.3

PI 1.2.3		Relevant information is collected to support the harvest strategy	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	**Some** relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy.
			The fishery meets this SI at the SG 80 level.
	b	**Y**	Stock abundance and fishery removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule.
			The fishery meets this SI at the SG 100 level.
80	**a**	**Y**	**Sufficient** relevant information related to stock structure, stock productivity, fleet composition and other data is available to support the harvest strategy.
			There is a regional register of all vessels actively fishing in the region as well as domestic records of fishing vessels with EEZs held locally. Information, while largely complete, is not comprehensive across all vessels, but adequate to allow stratification of vessels into fleets with similar operational characteristics. A total of 30 "fleets" were defined for the assessment based on nationality, spatial location and time, with additional groupings based on temporal changes. Catch, effort and size composition data are complete for the fleets in the assessment. A limited amount of tag data was also available, but there are insufficient data to support the explicit spatial modeling available in MULTIFAN-CL (MFCL). While there are data gaps, these do not relate to primary forms of catch and effort data used in the assessment, but to operational details of vessels. The US fleet collects, and reports complete data on size, fishing effort and catches as required by The High Seas Compliance Act (Public Law 104-43, title I, par 102, Nov. 3, 1995) which established a system of permitting, reporting, and regulation for vessels of the US fishing on the high seas.
	b	**Y**	Stock abundance and fishery removals are **regularly monitored at a level of accuracy and coverage consistent with the harvest control rule**, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.
			The fishery meets this SI at the SG 100 level.
	c	**Y**	There is good information on all other fishery removals from the stock.
			Catches are reported at an acceptable level of accuracy for the stock assessment. Data have been identified as missing, but these are generally related to operational data (fishing gear, target species and fishing activity) rather than catch. The US AAFA catches represent only very small of the total catch from the south Pacific stock. Discards, incidental mortality and recreational catch are not generally reported. As long as these sources of mortality remain constant and/or negligible, this lack of recording should not present a problem to the stock assessment.
100	**a**	**N**	A **comprehensive range** of information (on stock structure, stock productivity, fleet composition, stock abundance, fishery removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available.
			Data collection is thorough and adequate to support the stock assessment and harvest strategy, but some missing operational data have been identified related to fishing gear, target species and fishing activity. The fishery therefore does not meet this level of performance.

PI 1.2.3		Relevant information is collected to support the harvest strategy	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
	b	**Y**	**All information** required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of inherent **uncertainties** in the information [data] and the robustness of assessment and management to this uncertainty. Catch data from all fleets are reported annually and inform the stock assessment. The abundance indices are primarily obtained from catch and effort data, particularly from the many longline fleets operating across the region, giving relatively long time series of information. Length composition data from these fleets provides information on mortality rates, selectivity and stock structure. The MFCL assessment includes evaluation of data uncertainty, including on natural mortality (M) and sex-specific growth rates. While there is also uncertainty about the early biomass trend due to increased variation relative to later years, this has negligible effect on the management parameters (ratio estimators) or advice to managers regarding the status of the stock. Regulations that apply to the AAFA South Pacific albacore fishery under MSC reassessment include those issued by the NMFS, http://www.nmfs.noaa.gov/ia/services/highseas.htm) under the authority of the WCPFC Implementation Act to implement certain provisions of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean Convention area. The regulations include: • Owners or operators are required to have a valid high seas fishing permit with an endorsement called a 'WCPFC Area Endorsement issued by NMFS. • Reporting and recordkeeping are required on fish catches including catch, effort, locations and times of fishing, gear-type, species caught and amounts retained and discarded. • There are also requirements related to permitting, vessel monitoring systems, vessel observers, vessel markings, at-sea transshipment, and boarding and inspection on the high seas, amongst others.
References			Bigelow & Hoyle 2008, Griggs 2008, Hoyle 2011, Hoyle *et al.* 2008, Hoyle & Davies 2009, Hoyle 2008, Jones & Shallard 2009, Langley & Hoyle 2008, Medley *et al.* 2011, MRAG 2009, Unwin *et al.* 2005, Williams & Terawasi 2009.
OVERALL PERFORMANCE INDICATOR SCORE:			**90**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 1.2.4

PI 1.2.4		There is an adequate assessment of the stock status	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**b**	**Y**	The assessment estimates stock status relative to reference points. The assessment uses the dimensionless $B_{CURRENT}/B_{MSY}$ and $F_{CURRENT}/F_{MSY}$ to determine status. The MSY levels, on which management reference points are implicitly defined, take account of the knowledge of the biology of the stock. Where uncertainty exists (such as with the stock recruitment relationship steepness), precautionary values have been used. The reference points are adequate for evaluating the stock status.
	c	**Y**	The assessment **identifies major sources** of uncertainty. The fishery meets this SG at to SG 80 level.
80	**a**	**Y**	The assessment is appropriate for the stock and for the harvest control rule. The methodology used for the assessment is based on the software MULTIFAN-CL (MFCL), which is software that implements a size-based, age- and spatially-structured population model. Parameters of the model are estimated by maximizing an objective function consisting of likelihood (data) and "prior" information. MFCL was specifically developed to take advantage of the tuna fishery data available from the region. The assessment method should be able to support all appropriate reference points and harvest control rules (see PI 1.1.2 and 1.2.2). While the assessment method was derived in a different way to other methods fitting age structured models (it was derived from ideas in modal progression in length frequency data), the model and software produce equivalent results to other age structured stock assessment methods (such as CASAL).
	c	**Y**	The assessment **takes uncertainty into account**. The assessment software fits the population model to the data using likelihood. While not claiming to be fully Bayesian (probabilistic), it does include "priors" and penalties to improve estimation and produce likelihood profiles for estimate values of interest, which are used as a measure of uncertainty. However, the assessment recognizes structural errors as the largest source of uncertainty, and therefore produces ranges from sensitivity analyses as a better indicator of uncertainty.
	e	**Y**	The assessment of stock status is subject to peer review. The stock assessment has been developed and continues to be used by the SPC. The method has been well-documented and published in peer-review journals. The assessment is conducted by several scientists at the SPC and then presented to and reviewed by a pre-assessment workshop, the WCPFC Scientific Committee. The WCPFC is considering independent external review, but the approach will depend on costs.
100	**a**	**N**	The assessment is appropriate for the stock and for the harvest control rule and takes into account the major features relevant to the biology of the species and the nature of the fishery. The assessment of the stock is appropriate and very informative. However, no formal harvest control rule is in place and so the fishery cannot fully meet this level of performance.
	c	**Y**	The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a **probabilistic** way.

PI 1.2.4		There is an adequate assessment of the stock status	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			A relatively large number of sensitivity analyses have been conducted on the stock assessments for this species, as recommended by the stock assessment preparatory meeting as well as identified by the assessment scientists. An "uncertainty analysis", which tried all combinations of sensitivity analyses, was used to consider both individual uncertainties and their interactions. This allows a broad assessment of structural uncertainty, such that the fishery meets this level of performance.
	d	**N**	The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored. Many of the underlying structural assumptions of the model have been reviewed and the assessment model and/or data have been adjusted to match research findings and changes in expert opinion and judgment. This constant review and adjustment is good practice and should reduce structural errors in the model. The open documentation and model review process increases confidence in the robustness of the assessment. The cumulative effect of the most recent changes was to reduce the biomass estimates and raise the fishing mortality estimates compared to previous assessments. Model diagnostics indicate that some sources of bias have been removed, but that some problems remain , as such the fishery does not fully meet this level of performance..
	e	**N**	The assessment has been **internally and externally** peer reviewed. The stock assessment has been developed and continues to be used by the SPC. The method has been well-documented and published in peer-review journals. The assessment is conducted by several scientists at the SPC and then presented to and reviewed by a pre-assessment workshop, the WCPFC Scientific Committee. The WCPFC is considering independent external review, but the approach will depend on costs. The fishery does not meet this level of performance.
References			Fournier *et al.* 1998, Hoyle 2011, Hoyle & Davies 2009, Hoyle *et al.* 2009.
OVERALL PERFORMANCE INDICATOR SCORE:			**85**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.1.1

PI 2.1.1		The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Main retained species are **likely** to be within biologically based limits (if not, go to scoring issue d below).
			As the catch of no retained species exceeds 5% of the total albacore landings, it is considered that there are no main retained species in AAFA's South Pacific albacore fishery.
	c	**Y**	If main retained species are outside the limits there are **measures** in place that are **expected** to ensure that the fishery does not hinder recovery and rebuilding of the depleted species.
			There are no main retained species in the fishery.
	d	**Y**	If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the retained species to be outside biologically based limits or hindering recovery.
			There are no main retained species in the fishery.
80	**a**	**Y**	Main retained species are **highly likely** to be within biologically based limits (if not, go to scoring issue c below).
			There are no main retained species in the fishery.
	c	**Y**	If main retained species are outside the limits there is a **partial strategy** of **demonstrably effective** management measures in place such that the fishery does not hinder recovery and rebuilding.
			There are no main retained species in the fishery.
100	**a**	**Y**	There is a **high degree of certainty** that retained species are within biologically based limits **and** fluctuating around their target reference points.
			For the period 2006 – 2008, North Pacific albacore made up the greatest quantity of retained species in the South Pacific albacore catch, but just 2 t (0.34 % of the target albacore catch) were landed in 2006 and 1 t (0.67 % of the target albacore catch) in 2008. All other species were recorded as 0 t, meaning that < 0.5 t was landed (therefore making up a maximum of 0.3% of the target albacore catch) (WCPFC 2011). The North Pacific albacore stock was assessed in 2011 (WCPFC 2011c); the stock is considered to be healthy at current levels of recruitment and fishing mortality, and the stock is expected to fluctuate around the long-term median SSB in the foreseeable future. Overfishing is not occurring and the stock not likely to be in an overfished condition. For any other retained species, catches of < 0.5 t are considered to be rare events and negligible in their impact. As such, an understanding of the stock status of any other retained species with respect to biological reference points is not considered necessary in order for the fishery to meet this scoring issue (MSC 2012).
	b	**Y**	Target reference points are defined for retained species.
			In 2008, the Northern Committee of the WCPFC established an interim management objective for North Pacific albacore of maintaining the spawning stock biomass (SSB) above the average of the ten historically lowest estimated points (ATHL) with a probability greater than 50%. The interim target reference point was therefore defined as FSSB-ATHL 50%. Although this is only an interim objective, it is considered that this meets the requirements of this scoring issue.

PI 2.1.1		The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			With no recorded landings of any other HMS fish species (although landings < 0.5 t may occur and still be recorded as 0 catches), this scoring guidepost can be met without knowing the status of those species with respect to biological reference points (MSC 2012).
References			MSC 2012, WCPFC 2011c.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.1.2

PI 2.1.2		There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	There are **measures** in place, if necessary, that are expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.
			As the catch of no retained species exceeds 5% of the total albacore landings, it is considered that there are no main retained species in AAFA's South Pacific albacore fishery.
	b	**Y**	The measures are considered **likely** to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).
			There are no main retained species in the fishery.
80	**a**	**Y**	There is a **partial strategy** in place, if necessary that is expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding.
			There are no main retained species in the fishery.
	b	**Y**	There is some **objective basis for confidence** that the partial strategy will work, based on some information directly about the fishery and/or species involved.
			There are no main retained species in the fishery.
	c	**Y**	There is **some evidence** that the partial strategy is being **implemented successfully.**
			There are no main retained species in the fishery.
100	**a**	**Y**	There is a **strategy** in place for managing retained species.
			The troll method of fishing ensures that the capture of species other than albacore is a rare event and poses no risk to those species. This is demonstrated through the negligible quantities of other species taken in the fishery, with a maximum average of 0.67 % of the weight of the South Pacific albacore catch being recorded for any species from 2006 – 2008 (WCPFC 2011b) (and that maximum value being for North Pacific albacore, which would have been taken on the way to or from the South Pacific from Hawaii or home ports on the US West Coast). Trolling gear is clearly designed for and is successful at catching albacore rather than other species and, together with the MSA requirements to minimize bycatch (e.g. NMFS 2008c), this is considered to constitute an operational strategy for managing retained species.
	b	**Y**	**Testing** supports **high confidence** that the strategy will work, based on information directly about the fishery and/or species involved.
			The 3 years of retained species data show that other species are not and/or cannot be taken in large quantities by the troll gears used in the fishery. It is considered that these data show that the strategy works to keep the catch of retained species at very limited, negligible levels.
	c	**Y**	There is **clear evidence** that the strategy is being **implemented successfully.**
			Retained HMS species data show clearly that the amounts of catch of species other than albacore are negligible. The record of very low bycatch levels shows that the fishery is successful in targeting albacore.

PI 2.1.2		There is a strategy in place for managing retained species that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to retained species	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
	d	**Y**	There is some **evidence** that the strategy is **achieving its overall objective**.
			Catch records for the troll fishery are available for at least 3 years that show the retained catch of species other than albacore is maintained at negligible levels.
References			NMFS 2008c, WCPFC 2011b.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.1.3

PI 2.1.3			Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	**Qualitative information** is available on the amount of main retained species taken by the fishery.
			As the catch of no retained species exceeds 5% of the total albacore landings, it is considered that there are no main retained species in AAFA's South Pacific albacore fishery.
	b	**Y**	Information is **adequate to qualitatively** assess outcome status with respect to biologically based limits.
			There are no main retained species in the fishery.
	c	**Y**	Information is adequate to support **measures** to manage **main** retained species.
			There are no main retained species in the fishery.
80	**a**	**Y**	**Qualitative information** and **some quantitative information** are available on the amount of main retained species taken by the fishery.
			There are no main retained species in the fishery.
	b	**Y**	Information is **sufficient to estimate** outcome status with respect to biologically based limits.
			There are no main retained species in the fishery.
	c	**Y**	Information is adequate to support a **partial strategy** to manage **main** retained species.
			There are no main retained species in the fishery.
	d	**Y**	Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator score or the operation of the fishery or the effectiveness of the strategy)
			There are no main retained species in the fishery.
100	**a**	**N**	Accurate and verifiable information is available on the catch of all retained species and the consequences for the status of affected populations.
			Catches of retained HMS species in the albacore fishery are reported through a 100% logbook program (NMFS 2012) and may be monitored at landing sites (PFMC 2011a). There is no reason to suspect that catches exceed reported landings as there is no apparent or obvious incentive to misreport catches of those species (i.e., the albacore fleet is not subject to quotas on the HMS species that are retained, although it is accepted that some misreporting might occur where rare catches are not included in reports for convenience). Additional management measures are not currently warranted (NMFS 2012), and there was no recommendation to increase observer coverage or data collection in the fishery (e.g. NMFS 2011a). However, there is no observer program on the fishery and the catch of all retained species cannot therefore be verified, so the fishery does not meet this scoring issue.
	b	**Y**	Information is **sufficient to quantitatively** estimate outcome status with **a high degree of certainty.**

PI 2.1.3		Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained species	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			The amount of retained species taken in the albacore fishery is very small, and is considered negligible in that they pose no risk of impacting those species. As such, the fishery meets this scoring issue.
	c	**Y**	Information is adequate to support a **comprehensive strategy** to manage retained species, and evaluate with a **high degree of certainty** whether the strategy is achieving its objective.
			Data on catches of species that are retained in the AAFA South Pacific albacore fishery are available for the period 2006 – 2008. These show that catches of no species other than North Pacific albacore exceeded 0.5 t (WCPFC 2011b). It is considered that these data are adequate to support a comprehensive strategy to manage retained species, and that there can be a high degree of certainty that the strategy is achieving its objective.
	d	**Y**	Monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species.
			The HMS species that are retained in the albacore fishery are reported in logbooks, and are monitored at landings. There is no reason to believe that these data are not accurate and, as such, it is considered that the data are sufficiently detailed to allow an ongoing assessment of all retained species.
References			NMFS 2011a, NMFS 2012, PFMC 2011a, WCPFC 2011b.
OVERALL PERFORMANCE INDICATOR SCORE:			**95**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.2.1

PI 2.2.1		The fishery does not pose a risk of serious or irreversible harm to the bycatch species or species groups and does not hinder recovery of depleted bycatch species or species groups	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Main bycatch species are **likely** to be within biologically based limits (if not, go to scoring issue b below).
			The troll fishing gear employed in the AAFA South Pacific albacore fishery is highly selective; it is employed at the sea surface in deep water such that there is never any contact with the seabed, while the gear always remains attached to the vessel and must be actively fished. As such, there are very low levels of retained species (WCPFC 2011), and there will also inevitably be very low levels of bycatch, almost all of which will be albacore or, more rarely, other targeted HMS species. Because fish are hauled aboard immediately after they become hooked, fishermen are also quickly able to discern if an albacore shoal being targeted is made up of fish that are too small to be retained for economic or regulatory reasons. In such cases, lines can be pulled in quickly and the vessel moved in search of another shoal containing larger, marketable albacore. Observer information suggests discarded fish are almost all small albacore (<57 cm length), with discard rates averaging around 1.7 % of the landed albacore catch (Labelle 1993). As such, it is considered that there are no main bycatch species in the AAFA South Pacific albacore troll fishery.
	b	**Y**	If main bycatch species are outside biologically based limits there are mitigation **measures** in place that are **expected** to ensure that the fishery does not hinder recovery and rebuilding.
			There are no main bycatch species in the fishery.
	c	**Y**	If the status is poorly known there are measures or practices in place that are expected to result in the fishery not causing the bycatch species to be outside biologically based limits or hindering recovery.
			There are no main bycatch species in the fishery.
80	**a**	**Y**	Main bycatch species are **highly likely** to be within biologically based limits (if not, go to scoring issue b below).
			There are no main bycatch species in the fishery.
	b	**Y**	If main bycatch species are outside biologically based limits there is a **partial strategy** of **demonstrably effective** mitigation measures in place such that the fishery does not hinder recovery and rebuilding.
			There are no main bycatch species in the fishery.
100	**a**	**Y**	There is a **high degree of certainty** that bycatch species are within biologically based limits.

PI 2.2.1		The fishery does not pose a risk of serious or irreversible harm to the bycatch species or species groups and does not hinder recovery of depleted bycatch species or species groups	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			Bycatch in the fishery is low, with the majority of the discarded fish being small albacore (<57 cm length), with some shark damaged fish also being discarded. A very small number of other HMS species may also be discarded, but individuals that are discarded as bycatch will be smaller than those that are retained. Retained catch is so small that no species other than albacore registered in landings data, and so discard rates are anticipated to be negligible. Post-release survival is also likely to be relatively high in comparison to most other fisheries because of the rapid retrieval and ability to release, although survival will not be 100% and tagging studies have shown that the survival of fish hooked in the upper jaw is lower than in those hooked in the lower jaw (PFMC 2007a). Importantly, the troll mode of fishing ensures that bycatch and discarding of fish is a rare event and is negligible in its impact.
References			Labelle 1993, PFMC 2007a, PFMC 2011b, WCPFC 2011.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.2.2

PI 2.2.2		There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	There are **measures** in place, if necessary, which are expected to maintain main bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery.
			As the catch of no bycatch species exceeds 5% of the total albacore landings, it is considered that there are no main bycatch species in AAFA's South Pacific albacore fishery.
	b	**Y**	The measures are considered **likely** to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/species).
			There are no main bycatch species in the fishery.
80	**a**	**Y**	There is a **partial strategy** in place, if necessary, for managing bycatch species at levels which are highly likely to be within biologically based limits or to ensure that the fishery does not hinder their recovery.
			There are no main bycatch species in the fishery.
	b	**Y**	There is **some objective basis for confidence** that the partial strategy will work, based on some information directly about the fishery and/or the species involved.
			There are no main bycatch species in the fishery.
	c	**Y**	There is **some evidence** that the partial strategy is being implemented successfully.
			There are no main bycatch species in the fishery.
100	**a**	**Y**	There is a **strategy** in place for managing and minimising bycatch.
			Trolling ensures that the capture of species other than albacore is a rare event and poses no risk to those species. The rapid return of fish after hooking will allow for a proportion of bycatch species to survive post-release. The gear is clearly designed for and is successful at catching albacore rather than other species and, together with the MSA requirements to minimize bycatch (e.g. PFMC 2011a), this is considered to constitute an operational strategy for managing bycatch species.
	b	**Y**	**Testing** supports **high confidence** that the strategy will work, based on information directly about the fishery and/or species involved.
			The 3 years of retained species data 2006 – 2008 show that species other than albacore are not and/or cannot be taken in large quantities by the troll gears used in the fishery (WCPFC 2011). Quantitative bycatch data are limited but show that bycatch of undersized and shark damaged albacore averages 1.7% of the retained albacore catch (Labelle 1993). It is considered that the operational strategy works to keep bycatch at very limited, negligible levels.
	c	**N**	There is **clear evidence** that the strategy is being implemented successfully.
			The information available on bycatch levels is very limited. As such, it cannot be said there is clear evidence that the strategy is being implemented successfully.
	d	**N**	There is some **evidence** that the strategy is achieving its objective.
			The information available on bycatch levels is very limited. As such, it cannot be said there is some evidence that the strategy is achieving its objective.

PI 2.2.2			There is a strategy in place for managing bycatch that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to bycatch populations
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
References			Labelle 1993, PFMC 2011a, WCPFC 2011.
OVERALL PERFORMANCE INDICATOR SCORE:			**90**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.2.3

PI 2.2.3		Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	**Qualitative information** is available on the main bycatch species affected by the fishery.
			The catch of no bycatch species exceeds 5% of the total albacore landings, and so it is considered that there are no main bycatch species in AAFA's South Pacific albacore fishery.
	b	**Y**	Information is **adequate** to **broadly understand** outcome status with respect to biologically based limits
			There are no main bycatch species in the fishery.
	c	**Y**	Information is adequate to support **measures** to manage bycatch.
			There are no main bycatch species in the fishery.
80	**a**	**Y**	**Qualitative information and some quantitative information** are available on the amount of main bycatch species affected by the fishery.
			There are no main bycatch species in the fishery.
	b	**Y**	Information is **sufficient to estimate** outcome status with respect to biologically based limits.
			There are no main bycatch species in the fishery.
	c	**Y**	Information is adequate to support a **partial strategy** to manage main bycatch species.
			There are no main bycatch species in the fishery.
	d	**Y**	Sufficient data continue to be collected to detect any increase in risk to main bycatch species (e.g., due to changes in the outcome indicator scores or the operation of the fishery or the effectively of the strategy).
			There are no main bycatch species in the fishery.
100	**a**	**N**	**Accurate and verifiable information** is available on the amount of all bycatch and the consequences for the status of affected populations.
			Although stock assessment information on HMS species is available and should confirm that any catch in the AAFA fishery is highly unlikely to have any impact at the population level, bycatch information from the fishery is limited and is not recent (data from 1990 – 1992, Labelle 1993). Therefore, it cannot be said that accurate and verifiable information is available, and the fishery cannot meet this scoring issue.
	b	**N**	Information is **sufficient** to quantitatively estimate outcome status with respect to biologically based limits with a **high degree of certainty**.
			Bycatch information from the fishery is limited and is not recent (data from 1990 – 1992, Labelle 1993). Therefore, it cannot be said that accurate and verifiable information is available on the amount of all bycatch and the consequences for the status of affected populations.
	c	**N**	Information is adequate to support a **comprehensive strategy** to manage bycatch, and **evaluate** with a **high degree of certainty** whether a strategy is **achieving its objective**.

PI 2.2.3		Information on the nature and the amount of bycatch is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage bycatch	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			Bycatch information from the fishery is limited and is not recent (data from 1990 – 1992, Labelle 1993). As such, it cannot be said that information is adequate to support a comprehensive strategy to manage bycatch, and to evaluate with a high degree of certainty whether the strategy is achieving its objective.
	d	**N**	Monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.
			Bycatch information from the fishery is limited and is not recent (data from 1990 – 1992, Labelle 1993). As such, it cannot be said that monitoring of bycatch data is conducted in sufficient detail to assess ongoing mortalities to all bycatch species.
References			Labelle 1993.
OVERALL PERFORMANCE INDICATOR SCORE:			**80**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.3.1

PI 2.3.1		The fishery meets national and international requirements for the protection of ETP species The fishery does not pose a risk of serious or irreversible harm to ETP species and does not hinder recovery of ETP species	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Known effects of the fishery are **likely** to be within limits of national and international requirements for protection of ETP species. **A variety of protected marine mammal, turtle and seabird species occur in the area in which the AAFA South Pacific albacore fishery occurs (Table 3** Table 3). However, the troll fishery is highly selective with the gear always being attached and worked in very close proximity to the vessel, so the potential for interaction with any ETP species is considered to be very low. The use of barbless hooks helps to minimise the potential for mortality to occur in the event that any ETP species were captured. The troll fishery is not identified in any recovery or spotlight species action plan for marine mammals, turtles or seabirds (e.g. NMFS 1998a, NMFS 1998b, NMFS 2008b, Reeves et al. 1998, USFWS 2009a, USFWS 2009b). The 2012 NOAA 'List of Fisheries', assessed the South Pacific albacore troll fisheries as Category II rather than Category III fishery (i.e. "occasional incidental mortality and serious injuries of marine mammals") because, although there are no documented injuries or mortalities of marine mammals, the fishery was only introduced to the List of Fisheries in 2009 and there are considered to be limited data on which to judge impacts (NOAA 2011a). The fishery exceeds the requirements of this scoring issue.
	b	**Y**	Known direct effects are **unlikely** to create **unacceptable impacts** to ETP species. Although there is no observer program in the fishery, when discussed during the site visit in 2011, SWFSC scientists who had participated in at-sea research and fishing surveys of the albacore stock were not unaware of any significant interaction issues between the fishery and ETP species. It is thought that perhaps one loggerhead turtle may be caught in the whole US North Pacific albacore troll fishery (i.e. not just AAFA vessels) per year, but that no turtle would die as a result of an interaction with the fishery (NMFS 2004). Analysis of more than 60,000 daily log sheets from the whole North Pacific troll fishery in 2000 and 2005 showed only two interactions with albatross species, both of which were released (although the species and condition on release were not listed) (SWFSC pers. comm.). A single humpback whale was reportedly snagged off California in 1997 by a trolling vessel (not necessarily an AAFA vessel), but the injury was not considered serious (PFMC 2007b). There is no reason to think that the South Pacific fishery would pose any more risk to turtle, seabird or marine mammal species than the North Pacific fishery, and this is confirmed by NMFS (2012) that noted "*Conservation and management measures for the fishery are not currently warranted as ... there are no known protected species interactions*". As such, there is limited evidence but a high level of confidence that the fishery poses no threat to ETP species. The fishery exceeds the requirements of this scoring issue.
80	**a**	**Y**	The effects of the fishery are known and are **highly likely** to be within limits of national and international requirements for protection of ETP species. The nature of the fishing gear used in the troll fishery ensures that the potential for the fishery to interact with ETP species is very low. The fishery is assessed as a Category II fishery in the 2012 NOAA List of Fisheries (NOAA 2011a) because of its recent introduction to the List of Fisheries. Conservation and management measures were considered unwarranted (NMFS 2012), and the fishery was not identified in any recovery or spotlight species action plan. The fishery exceeds the

			requirements of this scoring issue.
	b	**Y**	Direct effects are **highly unlikely** to create **unacceptable impacts** to ETP species.
			There is a very low possibility of direct interactions of the fishery with marine mammals, or of the capture of or entanglement with turtles and albatross. All such interactions are considered to be rare events (estimated 1 loggerhead turtle per year in the much larger US North Pacific albacore troll fishery- NMFS 2004, and an average of 1 albatross per year reported from the whole North Pacific troll fishery - SWFSC pers. comm.), and the nature of the gear provides captured animals with a good chance of survival. The fishery exceeds the requirements of this scoring issue.
	c	**Y**	Indirect effects have been considered and are thought to be unlikely to create unacceptable impacts.
			Potential routes for the AAFA troll fishery to indirectly impact ETP species are through the capture of albacore that would otherwise be consumed by ETP species, or through becoming entangled in or ingesting lost gear. The albacore stock in the South Pacific is not overfished or experiencing overfishing (Hoyle 2011). Because the troll gear is always attached to the vessel, the potential for gear loss is low. Even if gear is lost, though, the lines are short and the attached hook or jig should ensure that any lost lines quickly sink to the seabed, rather than continuing to be available to ETP species such as seabirds or turtles near to the surface. It is considered that the fishery exceeds the requirements of this scoring issue.
100	**a**	**N**	There is a **high degree of certainty** that the effects of the fishery are within limits of national and international requirements for protection of ETP species.
			There has been no recent observer coverage of the US South Pacific albacore troll fishery, and there is no observer plan currently in place. Although, the nature of the fishery (the use of barbless hooks and the gear always being attached and worked in very close proximity to the vessel), as well as the various recovery or spotlight species action plans for marine mammals, turtles or seabirds that do not consider the troll fishery to be an impacting factor, provide confidence that fishery's effects are within limits of national and international requirements for ETP species protection, it cannot be said that there is a high degree of certainty. The fishery does not meet this level of performance.
	b	**N**	There is a **high degree of confidence** that there are no significant **detrimental direct effects** of the fishery on ETP species.
			There is only one known direct interaction of the much larger US North Pacific albacore troll fishery with a marine mammal, and there is confidence that the South Pacific troll fishery also results in no detrimental direct effects on marine mammals. There is the possibility of entanglement with turtles and seabirds, but these are considered to be rare events in the North Pacific (estimated 1 loggerhead turtle per year for the whole fishery- NMFS 2004, and an average of 1 albatross per year reported for the whole fishery- SWFSC pers. comm.), and this is also expected to be the case for the AAFA South Pacific albacore fishery. The nature of the gear also provides captured animals with a good chance of survival. However, the lack of recent independent observation of the fishery means that it cannot be said that there is a high degree of confidence that there are no significant direct effects on ETP species. It is considered that the fishery does not meet this scoring issue.
	c	**Y**	There is a **high degree of confidence** that there are no significant **detrimental indirect effects** of the fishery on ETP species.

			Potential indirect effects of the fishery on ETP species are considered to be through the capture of albacore that would otherwise be consumed by ETP species, and through those species becoming entangled in or ingesting lost gear. The status of South Pacific albacore, and the nature of the fishing gear that all but eliminates the potential for entanglement or ghost fishing, provides a high degree of confidence that there are no significant detrimental indirect effects of the fishery on ETP species.
References			Hoyle 2011, NMFS 1998a, NMFS 1998b, NMFS 2004, NMFS 2008b, NMFS 2012, PFMC 2010, Reeves *et al.* 1998, USFWS 2009a, USFWS 2009b.
OVERALL PERFORMANCE INDICATOR SCORE:			**85**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.3.2

PI 2.3.2			**The fishery has in place precautionary management strategies designed to:** • **Meet national and international requirements;** • **Ensure the fishery does not pose a risk of serious harm to ETP species;** • **Ensure the fishery does not hinder recovery of ETP species; and** • **Minimise mortality of ETP species.**
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	There are **measures** in place that minimise mortality, and are expected to be **highly likely to achieve** national and international requirements for the protection of ETP species.
			The AAFA South Pacific albacore troll fishery is highly selective with the gear always being attached and actively worked in very close proximity to the vessel, while the gear is retrieved as soon as anything is hooked and barbless hooks are used. The lines are short and loss of fishing gear is likely to be relatively rare, with any lost gear likely to quickly drop to the seafloor. The albacore stock is assessed and is not considered to be overfished or experiencing overfishing. These features of the fishery minimise the potential for any direct interactions with ETP species, while also minimising the potential for mortality in the event that anything was hooked but subsequently released. The potential for gear loss is low, while the healthy status of the South Pacific albacore stock (Hoyle 2011) minimises the potential for indirect impacts. Together, these features combine to form an operational strategy for managing the fishery's impact on ETP species, and so the fishery exceeds the requirements of this scoring guidepost.
	b	**Y**	The measures are **considered likely** to work, based on **plausible argument** (e.g., general experience, theory or comparison with similar fisheries/species).
			Troll fisheries for albacore are not listed in any of the relevant recovery or spotlight species action plan for marine mammals, turtles or seabirds (e.g. NMFS 1998a, NMFS 1998b, NMFS 2008b, Reeves *et al.* 1998, USFWS 2009a, USFWS 2009b), and conservation and management measures are considered to be 'not warranted' (NMFS 2012), such that it can be concluded that the that the operational strategy will work and the fishery meets this scoring issue.
80	**a**	**Y**	There is a **strategy** in place for **managing the fishery's impact** on ETP species, including measures to minimise mortality, that is designed to be **highly likely to achieve** national and international requirements for the protection of ETP species.
			All sea turtles taken in US HMS fisheries are required to be handled in accordance with US Federal Regulations (i.e. to be released if active or dead, or to be resuscitated if comatose or inactive) (NOAA 2011b). This regulation, combined with the features of the fishery described under SG60a, are considered to constitute an operational strategy for managing the fishery's impact on ETP species that is highly likely to achieve national and international requirements for the protection of ETP species.
	b	**Y**	There is an **objective basis for confidence** that the strategy will work, based on **information** directly about the fishery and/or the species involved.
			The features of the troll fishery, in particular that the lines are always attached and actively worked in close proximity to the vessel, and are retrieved as soon as anything is hooked, provide an objective basis for confidence that the operational strategy will work. The fishery meets this scoring issue.
	c	**Y**	There is **evidence** that the strategy is being implemented successfully.

PI 2.3.2			The fishery has in place precautionary management strategies designed to: • **Meet national and international requirements;** • **Ensure the fishery does not pose a risk of serious harm to ETP species;** • **Ensure the fishery does not hinder recovery of ETP species; and** • **Minimise mortality of ETP species.**
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			There are no independent observer records available for the South Pacific albacore troll fishery, but observations have been made in the closely related North Pacific albacore troll fishery. In that fishery, sea turtle interactions are considered to be very rare (NMFS 2004), while logbook data and the personal experience of the SWFSC scientists who participated in the site visit indicate that seabird interactions are also very rare. There is also only one known interaction between that fishery and a marine mammal (a humpback that was not thought to be seriously injured (PFMC 2007b)). Together with the NMFS List of Fisheries assessment for the South Pacific albacore troll fishery, that concluded "*Conservation and management measures for this fishery are currently not warranted as ... there are no known protected species interactions*" (NMFS 2012), it is considered that these provide evidence that the strategy is being implemented successfully.
100	**a**	**N**	There is a **comprehensive strategy** in place for managing the fishery's impact on ETP species, including measures to minimise mortality that is designed to achieve **above** national and international requirements for the protection of ETP species.
			The MSC defines a comprehensive strategy as "*a complete and tested strategy made up of linked monitoring, analyses, and management measures and responses*." The operational strategy that the AAFA troll fishery maintains cannot be considered to be comprehensive because of the lack of an ongoing observer program. This prevents the fishery from meeting the monitoring requirement of a comprehensive strategy.
	b	**N**	The strategy is mainly based on information directly about the fishery and/or species involved, and a **quantitative analysis** supports **high confidence** that the strategy will work.
			There has been no observer coverage of the South Pacific albacore troll fishery, and there is no observer plan currently in place. In the absence of independent data and a quantitative analysis of ETP interactions, the fishery cannot meet this scoring indicator.
	c	**N**	There is **clear evidence** that the strategy is being implemented successfully.
			There has been no observer coverage of the South Pacific albacore troll fishery, and there is no observer plan currently in place. In the absence of independent data, the fishery cannot meet this scoring indicator.
	d	**N**	There is evidence that the strategy is achieving its objective.
			There has been no observer coverage of the South Pacific albacore troll fishery, and there is no observer plan currently in place. In the absence of independent data, the fishery cannot meet this scoring indicator.
References			Hoyle 2011, NMFS 1998a, NMFS 1998b, NMFS 2004, NMFS 2008b, NOAA 2011b, PFMC 2007a, PFMC 2007b, Reeves *et al.* 1998, USFWS 2009a, USFWS 2009b.
OVERALL PERFORMANCE INDICATOR SCORE:			**80**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.3.3

PI 2.3.3			**Relevant information is collected to support the management of fishery impacts on ETP species including:** • **Information for the development of the management strategy;** • **Information to assess the effectiveness of the management strategy; and** • **Information to determine the outcome status of ETP species.**
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Information is sufficient to qualitatively estimate the fishery related mortality of ETP species.
			The nature of the fishery, including the gear types in use and the method of working the gear, provides sufficient information to infer that the AAFA fishery poses almost no risk to ETP turtle, seabird or marine mammal species. The fishery meets this scoring issue.
	b	**Y**	Information is **adequate** to **broadly understand** the impact of the fishery on ETP species.
			The nature of the fishery, including the gear types in use and the method of working the gear, is adequate to understand that the AAFA fishery poses almost no risk to ETP turtle, seabird or marine mammal species. The fishery meets this scoring issue.
	c	**Y**	Information is adequate to support **measures** to manage the impacts on ETP species.
			The nature of the fishery, including the gear types in use and the method of working the gear, provides adequate information to confirm that the operational strategy in use is effective at minimising the risk posed by the fishery to ETP turtle, seabird or marine mammal species. The fishery meets this scoring issue.
80	**a**	**Y**	**Sufficient data** are available to allow fishery related mortality and the impact of fishing to be **quantitatively** estimated for ETP species.
			Comprehensive logbook data are available and can be interrogated to provide some quantitative information on fishery interactions with ETP species. While the lack of observer coverage makes it possible that some interactions between this fishery and ETP species do occur but are not reported, the nature of the gear ensures that any interactions would inevitably be rare events.
	b	**Y**	Information is **sufficient** to determine whether the fishery may be a threat to protection and recovery of the ETP species.
			While there are no independent observer data available, the closely related North Pacific albacore troll fishery provides sufficient information to determine that the AAFA South Pacific albacore troll fishery does not pose a threat to the protection and recovery of ETP species. In the case of the North Pacific fishery, there are very few known interactions with ETP turtles, seabirds or marine mammals, while the Biological Opinion confirmed that the incidental take was not likely to result in jeopardy of loggerhead, or of other sea turtle or marine mammal species (NMFS 2004). The assessment of the New Zealand albacore troll fishery, that uses very similar gear and which was certified in 2011, also reported that "*There are no records or other evidence of direct interactions between the tuna troll fishery and endangered or threatened species*" (Medley *et al.* 2011). It is considered that the information is sufficient to determine that the fishery is not a threat to protection and recovery of the ETP species.
	c	**Y**	Information is sufficient to measure trends and support a full **strategy** to manage impacts on ETP species.

PI 2.3.3			**Relevant information is collected to support the management of fishery impacts on ETP species including:** • **Information for the development of the management strategy;** • **Information to assess the effectiveness of the management strategy; and** • **Information to determine the outcome status of ETP species.**
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			Fishermen in the AAFA South Pacific albacore troll fishery continue to be required to submit logbooks within 24 hours of making a landing. Comprehensive logbook data are available for a number of years and can be interrogated to provide quantitative information on fishery interactions with ETP species, even if some interactions may be unreported. The fishery meets this scoring issue.
100	**a**	**N**	Information is **sufficient** to **quantitatively** estimate outcome status of ETP species with a high degree of certainty.
			There has been no observer coverage of the AAFA South Pacific albacore troll fishery, and there is no observer plan currently in place. In the absence of independent data, the fishery cannot meet this scoring indicator.
	b	**N**	**Accurate and verifiable information** is available on the **magnitude of all impacts, mortalities and injuries** and the **consequences for the status** of ETP species.
			There has been no observer coverage of the AAFA South Pacific albacore troll fishery, and there is no observer plan currently in place. In the absence of independent data, the fishery cannot meet this scoring indicator.
	c	**N**	Information is adequate to support a **comprehensive strategy** to manage impacts, minimise mortality and injury of ETP species, and evaluate with a **high degree of certainty** whether a strategy is achieving its objectives.
			There has been no observer coverage of the AAFA South Pacific albacore troll fishery, and there is no observer plan currently in place. In the absence of independent data, the fishery cannot meet this scoring indicator.
References			Medley *et al.* 2011, NMFS 2004.
OVERALL PERFORMANCE INDICATOR SCORE:			**80**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.4.1

PI 2.4.1		The fishery does not cause serious or irreversible harm to habitat structure, considered on a regional or bioregional basis and function	
SG	**Issue**	**Met? (Y/P/ N)**	**Justification/Rationale**
60	**a**	**Y**	The fishery is **unlikely** to reduce habitat structure and function to a point where there would be serious or irreversible harm. The AAFA South Pacific albacore troll fishery operates entirely at the surface in deep, oceanic water. There is therefore no risk that the fishery contacts the seabed, and any impacts on the pelagic habitat would be imperceptible and highly transient.
80	**a**	**Y**	The fishery is **highly unlikely** to reduce habitat structure and function to a point where there would be serious or irreversible harm. The AAFA South Pacific albacore troll fishery operates entirely at the surface in deep, oceanic water. There is therefore no risk that the fishery contacts the seabed, and any impacts on the pelagic habitat would be imperceptible and highly transient.
100	**a**	**Y**	There is **evidence** that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm. The AAFA South Pacific albacore troll fishery operates entirely at the surface in deep, oceanic water. The nature of the gear, the areas in which the fishery operates and the species that are landed all provide evidence that the fishery is highly unlikely to ever come in to contact with the seabed, while there is no mechanism by which the fishery could impact pelagic habitats in anything other than an imperceptible and highly transient manner. As such, the fishery is not considered to impact habitat structure and function in any way.
References			
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.4.2

PI 2.4.2		There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	There are **measures** in place, if necessary, that are expected to achieve the Habitat Outcome 80 level of performance.
			The AAFA South Pacific albacore troll fishery operates entirely at the surface in deep, oceanic water. The fishery does not contact the seabed and any pelagic habitat impacts will be imperceptible and highly transient. No additional measures are therefore needed in order to achieve the habitat outcome 80 level of performance.
	b	**Y**	The measures are considered **likely** to work, based on plausible argument (e.g. general experience, theory or comparison with similar fisheries/habitats).
			The fishery operates entirely at the surface in deep, oceanic water.
80	**a**	**Y**	There is a **partial strategy** in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above.
			The fishery operates entirely at the surface in deep, oceanic water. The fishery does not contact the seabed and any pelagic habitat impacts will be imperceptible and highly transient. An additional partial strategy is therefore unnecessary in order to achieve the habitat outcome 80 level of performance.
	b	**Y**	There is some **objective basis for confidence** that the partial strategy will work, based on **information directly about the fishery and/or habitats** involved.
			The fishery operates entirely at the surface in deep, oceanic water.
	c	**Y**	There is **some evidence** that the partial strategy is being implemented successfully.
			The fishery operates entirely at the surface in deep, oceanic water.
100	**a**	**Y**	There is a **strategy** in place for managing the impact of the fishery on habitat types.
			The fishery operates entirely at the surface in deep, oceanic water. The nature of the gear, the habits of the target species and the areas in which the fishery operates mean that there is no possibility of the fishery contacting the seabed, while any pelagic impacts will be imperceptible and highly transient. These features of the fishery can be considered to constitute an operational strategy for managing the impact of the fishery on habitat types.
	b	**Y**	**Testing** supports **high confidence** that the strategy will work, based on **information directly about the fishery and/or habitats** involved.
			To the knowledge of the assessment team, there has been no specific testing to determine if the AAFA albacore fishery impacts habitats, but the nature of the gear and the area in which the fishery operates (i.e. deep, oceanic water) means that there is high confidence that the operational strategy of the fishery will work to manage impacts o habitats. The fishery is considered to meet this scoring issue.
	c	**Y**	There is **clear evidence** that that strategy is being implemented successfully.
			The fishery operates entirely at the surface in deep, oceanic water. The nature of the gear, the habits of the target species, the areas in which the fishery operates and the retained species profile provide clear evidence that the strategy is being implemented successfully.

PI 2.4.2		There is a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
	d	**Y**	There is some evidence that the strategy is achieving its objective.
			Habitat impacts from this fishery are not monitored. However, there is no possibility of the fishery contacting the seabed, while any pelagic impacts will be imperceptible and highly transient. As such, it is considered that this scoring issue is met.
References			
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.4.3

PI 2.4.3		Information is adequate to determine the risk posed to habitat types by the fishery and the effectiveness of the strategy to manage impacts on habitat types	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	There is **basic understanding** of the types and distribution of main habitats in the area of the fishery.
			The AAFA South Pacific albacore troll fishery operates entirely at the surface in deep, oceanic water, along fronts and upwelling boundaries within the Subtropical Convergence Zone (STCZ) (Laurs 1986, Roberts 1980). As the fishery does not contact the seabed, only the sea surface pelagic habitat of the South Pacific can be considered to be a main habitat type. This pelagic system covers a very extensive area (e.g. Figure 3).
	b	**Y**	Information is adequate to broadly understand the nature of the main impacts of gear use on the main habitats, including spatial overlap of habitat with fishing gear.
			The surface pelagic habitat within and around the STCZ constitutes the main habitat of the albacore that are targeted in the AAFA South Pacific fishery. The nature of the troll gear means that no seabed habitats will be impacted, while any impacts to the surface pelagic habitat will be imperceptible and highly transient.
80	**a**	**Y**	The nature, distribution and **vulnerability** of all main habitat types in the fishery are known at a level of detail relevant to the scale and intensity of the fishery.
			The areas in which the troll fishery occurs are closely linked to the STCZ (Laurs 1986, Roberts 1980). This system has been described (e.g. Tomczak & Godfrey 1994), and it must be concluded that this surface pelagic habitat is not vulnerable to fishing activities of the scale and intensity of the AAFA troll fishery.
	b	**Y**	Sufficient data are available to allow the nature of the impacts of the fishery on habitat types to be identified and there is reliable information on the spatial extent of interaction, and the timing and location of use of the fishing gear.
			The surface pelagic habitat within the STCZ where the AAFA fishery operates is very extensive. The impact of the vessel passage and gear use in the surface waters are considered imperceptible and highly transient.
	c	**Y**	Sufficient data continue to be collected to detect any increase in risk to habitat (e.g. due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).
			The AAFA South Pacific albacore troll fishery operates at the surface, and the nature and distribution of the target species ensures that there is no possibility that the operation of the fishery can change significantly, or that the risk to the pelagic or seabed habitats will increase.
100	**a**	**Y**	The distribution of habitat types is known over their range, with particular attention to the occurrence of vulnerable habitat types.
			The STCZ has been described (e.g. Tomczak & Godfrey 1994). This is not a vulnerable habitat in the context of surface pelagic fishing activity.
	b	**Y**	The physical impacts of the gear on the habitat types have been quantified fully.

			The nature of the troll albacore gears means that there is considered to be no risk to seabed or pelagic habitats. Essentially, nothing the AAFA troll fleet does or can do will physically impact the seabed or pelagic systems in anything other than an imperceptible and highly transient manner.
	c	**Y**	Changes in habitat distributions over time are measured.
			The STCZ has been described (e.g. Tomczak & Godfrey 1994). The location and nature of the STCZ is known to vary over time, but this variation is driven by climate and physical forcing (e.g. from wind) rather than as a result of fishing activity.
References			Murray 1993, Tomczak & Godfrey 1994.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.5.1

PI 2.5.1		The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function	
SG	**Issue**	**Met? (Y/P/N)**	**Justification/Rationale**
60	**a**	**Y**	The fishery is **unlikely** to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. Key elements of the AAFA South Pacific albacore fishery ecosystem are considered to be albacore as a high trophic-level predator, other HMS species as competitors and predators of albacore, and the STCZ as the key habitat of albacore in the parts of the South Pacific fished by the AAFA fleet. The nature of the gear employed in the fishery, the negligible quantities of retained species and bycatch, and the large area of the STCZ over which the fishery operates mean that it is considered that the fishery is unlikely to disrupt key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.
80	**a**	**Y**	The fishery is **highly unlikely** to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. The nature of the gear employed in the fishery, the negligible quantities of retained species and bycatch, and the large area of the STCZ over which the fishery operates mean that it is considered that the fishery is highly unlikely to disrupt key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.
100	**a**	**Y**	There is **evidence** that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. The South Pacific albacore stock is currently not overfished or experiencing overfishing (Hoyle 2011), and albacore is not a keystone predator or prey species in the Central Pacific (Kitchell *et al.* 1999). More information on the impact of albacore fishery removals at the ecosystem level would be useful but is not considered a requirement in order for the fishery to meet this level of performance at this time, given the stock status. The surface pelagic habitat of the STCZ covers an enormous area and this feature is affected only by climate and physical forcing (i.e., weather, water currents, etc.); there is nothing that the AAFA fishery can do that would impact the habitat in anything other than an imperceptible and highly transient way. It is considered that there is evidence that the AAFA South Pacific albacore fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.
References			Hoyle 2011, Kitchell *et al.* 1999.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.5.2

PI 2.5.2		There are measures in place to ensure the fishery does not pose a risk of serious or irreversible harm to ecosystem structure and function	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	There are **measures** in place, if necessary.
			Key elements of the AAFA South Pacific albacore fishery ecosystem are considered to be albacore as a high trophic-level predator, other HMS species as competitors and predators of albacore, and the SPCZ as the key habitat of albacore in the parts of the South Pacific fished by the AAFA fleet. It is considered that there is evidence that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. As such, it is considered that no additional measures are needed in order to achieve the ecosystem outcome 80 level of performance.
	b	**Y**	The **measures** take into account potential impacts of the fishery on key elements of the ecosystem.
			It is considered highly unlikely that the fishery poses a risk to key elements of the ecosystem.
	c	**Y**	The measures are considered likely to work, based on **plausible argument** (e.g., general experience, theory or comparison with similar fisheries/ecosystems).
			It is considered highly unlikely that the fishery poses a risk to key elements of the ecosystem.
80	**a**	**Y**	There is a **partial strategy** in place, if necessary.
			It is considered that there is evidence that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. As such, it is considered that a partial strategy is not necessary in order to achieve the ecosystem outcome 80 level of performance.
	b	**Y**	The partial strategy takes into account **available information and is expected to restrain impacts** of the fishery on the ecosystem so as to **achieve** the Ecosystem Outcome 80 level of performance.
			It is considered highly unlikely that the fishery poses a risk to key elements of the ecosystem.
	c	**Y**	The partial strategy is considered likely to work, based on **plausible argument** (e.g., general experience, theory or comparison with similar fisheries/ecosystems).
			It is considered highly unlikely that the fishery poses a risk to key elements of the ecosystem.
	d	**Y**	There is **some evidence** that the measures comprising the partial strategy are being **implemented successfully.**
			It is considered highly unlikely that the fishery poses a risk to key elements of the ecosystem.
100	**a**	**N**	There is a **strategy** that consists of a **plan**, in place.
			It is considered that there is evidence in the form of the nature of the gear employed in the fishery, the negligible quantities of retained species and bycatch (WCPFC 2011), the status of the albacore stock (Hoyle 2011) and the large area of the STCZ

PI 2.5.2		There are measures in place to ensure the fishery does not pose a risk of serious or irreversible harm to ecosystem structure and function	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			over which the fishery operates that the fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. The features of the fishery and the ecosystem in which it operates may be considered to constitute an operational strategy. However, this operational strategy has not been formalised into a plan, and so this scoring issue has not been met.
	b	**N**	The **strategy**, which consists of a **plan**, contains measures to **address all main impacts of the fishery** on the ecosystem, and at least some of these measures are in place. The plan and measures are **based on well-understood** functional relationships between the fishery and the Components and elements of the ecosystem. This plan provides for **development of a full strategy that restrains impacts** on the ecosystem to ensure the fishery does not cause serious or irreversible harm.
			The same vessels that participate in the South Pacific albacore fishery also participate in the North Pacific albacore fishery which is presently included in the HMS FMP. As such, there is an operational strategy but no plan in place to manage all the main impacts of the fishery on the ecosystem.
	c	**N**	The measures are considered likely to work based on **prior experience**, plausible argument or **information** directly from the fishery/ecosystems involved.
			There is an operational strategy but no plan in place to manage all the main impacts of the fishery on the ecosystem. As such, these scoring issues have not been met
	d	**N**	There is evidence that the measures are being **implemented successfully**.
			There is an operational strategy but no plan in place to manage all the main impacts of the fishery on the ecosystem. As such, these scoring issues have not been met
References			Hoyle 2011, WCPFC 2011.
OVERALL PERFORMANCE INDICATOR SCORE:			**80**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 2.5.3

PI 2.5.3		There is adequate knowledge of the impacts of the fishery on the ecosystem	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Information is adequate to **identify** the key elements of the ecosystem (e.g., trophic structure and function, community composition, productivity pattern and biodiversity).
			Key elements of the AAFA South Pacific albacore fishery ecosystem can be identified and are considered to be the albacore as a high trophic-level predator, other HMS species as competitors and predators of albacore, and the STCZ as the key habitat of albacore in the parts of the South Pacific fished by the AAFA fleet.
	b	**Y**	Main impacts of the fishery on these key ecosystem elements can be inferred from existing information, and **have not been investigated in detail**.
			The main impacts of the fishery on the key ecosystem elements can be inferred from existing information. There is specific information, however, allowing the fishery to meet and exceed the requirements of this scoring issue.
80	**a**	**Y**	Information is adequate to **broadly understand** the key elements of the ecosystem.
			Albacore is an important commercial and recreational target fish species, and a body of knowledge exists that exceeds the requirements of this scoring issue (e.g. Childers *et al.* 2011, Hoyle 2011, Laurs & Lynn 1986). Other HMS species including billfish, tuna and shark species are managed and assessed in a detail that exceeds the requirements of this scoring issue, while the STCZ is an important oceanographic feature that has been studied (e.g. Kiladis *et al.* 1989, Tomczak & Godfrey 1994).
	b	**Y**	Main impacts of the fishery on these key ecosystem elements can be inferred from existing information and **some have been investigated in detail**.
			It is considered that the fishery exceeds the requirements of this scoring issue, and so the key information is provided under SG100b.
	c	**Y**	The main functions of the Components (i.e., target, Bycatch, Retained and ETP species and Habitats) in the ecosystem are **known**.
			It is considered that the fishery exceeds the requirements of this scoring issue, and so the key information is provided under SG100c.
	d	**Y**	Sufficient information is available on the impacts of the fishery on these Components to allow some of the main consequences for the ecosystem to be inferred.
			It is considered that the fishery exceeds the requirements of this scoring issue, and so the key information is provided under SG100d.
	e	**Y**	Sufficient data continue to be collected to detect any increase in risk level (e.g., due to changes in the outcome indicator scores or the operation of the fishery or the effectiveness of the measures).
			Monitoring of the albacore and other HMS stocks and fisheries is ongoing, and results are reported on annually, while the AAFA fishery poses no risk to the physical functioning of the STCZ. The fishery meets this scoring issue.
100	**b**	**Y**	Main interactions between the fishery and these ecosystem elements can be inferred from existing information, and **have been investigated**.

PI 2.5.3		There is adequate knowledge of the impacts of the fishery on the ecosystem	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			The South Pacific albacore is currently not overfished or experiencing overfishing (Hoyle 2011). There are very limited quantities of retained and bycatch species taken in the fishery (WCPFC 2011), and those quantities are considered to be negligible in their impact, while albacore is not considered to be a keystone predator or prey species in the Central Pacific (Kitchell *et al.* 1999). The STCZ is an enormous oceanographic feature that is not impacted by any fishing activity. It is considered that the fishery meets the requirements of this scoring issue.
	c	**Y**	The impacts of the fishery on target, Bycatch and ETP species are **identified** and the main functions of these Components in the ecosystem are **understood**.
			The role of albacore and other HMS species within the pelagic foodweb have been studied (Kitchell *et al.* 1999). The STCZ has been studied and its formation and structure described (e.g. Tomczak & Godfrey 1994, Kiladis *et al.* 1989).
	d	**Y**	Sufficient information is available on the impacts of the fishery on the Components **and elements** to allow the main consequences for the ecosystem to be inferred.
			The South Pacific albacore stock is currently not overfished or experiencing overfishing, and albacore is not a keystone predator or prey species in the Central Pacific (Kitchell *et al.* 1999). Only negligible quantities of other HMS species are taken in the fishery. The surface pelagic habitat of the STCZ covers an enormous area and is affected only by climate and physical forcing (Kiladis *et al.* 1989); there is nothing that the AAFA fishery can do that would impact the nature of the habitat in anything other than an imperceptible and highly transient way.
	e	**Y**	Information is sufficient to support the development of strategies to manage ecosystem impacts.
			Although there is considered to be an operational strategy in place for managing the impact of the AAFA fishery on the ecosystem, there is not a strategy that consists of a plan in place. Nevertheless, there is considered to be sufficient information available that a comprehensive strategy could be developed. As such, the fishery meets this scoring issue.
References			Childers *et al.* 2011, Hoyle 2011, Kiladis *et al.* 1989, Kitchell *et al.* 1999, Laurs 1986, Tomczak & Godfrey 1994, WCPFC 2011.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.1.1

PI 3.1.1			**The management system exists within an appropriate legal and/or customary framework which ensures that it:** • **Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;** • **Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and** • **Incorporates an appropriate dispute resolution framework.**
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	The management system is generally consistent with local, national or international laws or standards that are aimed at achieving sustainable fisheries in accordance with MSC Principles 1 and 2.
			International management of the South Pacific albacore resource and fisheries operating on the resource is shared by the WCPFC and IATTC. However, the stock is assessed by the WCPFC. The Convention of the WCPFC incorporates the relevant principles of international law related to the conservation and management of living marine resources in accordance with MSC Principles 1 and 2. NOAA/NMFS is the US government agency responsible for all aspects of the conservation and management of US fisheries. Regional Fishery Management Councils (FMCs) created by Sec 302 of MSA, develop fishery and management measures for the US fisheries operating within their adjacent EEZs and for US-flagged fisheries operating on the high seas outside the EEZ. NOAA/NMFS approves and implements these plans and measures. Standards set forth in MSA and amendments, as well as US policies and other laws, e.g., the National Environmental Policy Act (NEPA), ESA, MMPA, and others etc., incorporate the relevant principles related to the conservation and management of living marine resources in accordance with MSC Principles 1 and 2.
	b	**Y**	The management system incorporates or is subject by law to a **mechanism** for the resolution of legal disputes arising within the system.
			At the international level, WCPFC *Convention Article 10* specifies that the needs of small developing States, territories, etc. whose economies, food supplies, and livelihoods are dependent of the exploitation of marine resources must be taken in to account, *inter alia* and *Article 30* recognises the special requirements of developing states. At the domestic level the laws and rights affecting the US South Pacific fishery and fishers are clearly defined through the MSA, amendments to the MSA and other relevant Acts, and through case law developed through litigation.
	c	**Y**	Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability of the fishery.
			The auditors are not aware of any legal challenges and related binding judicial decisions at the domestic or international levels regarding South Pacific albacore.
	d	**Y**	The management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.
			At the international level, WCPFC *Convention Article 10* specifies that the needs of small developing States, territories, etc. whose economies, food supplies, and livelihoods are dependent of the exploitation of marine resources must be taken in to account, *inter alia* and *Article 30* recognises the special requirements of developing states. At the domestic level the Fishery Management Councils are mandated to observe

PI 3.1.1			**The management system exists within an appropriate legal and/or customary framework which ensures that it:** • **Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;** • **Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and** • **Incorporates an appropriate dispute resolution framework.**
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			the legal rights and customs of peoples dependent on fishing for food or livelihood. The laws and rights affecting the US South Pacific troll fishery and fishers are clearly defined through the MSA, amendments to the MSA and other relevant Acts, and through case law developed through litigation.
80	**b**	**Y**	The management system incorporates or is subject by law to a **transparent mechanism** for the resolution of legal disputes which is **considered to be effective** in dealing with most issues and that is appropriate to the context of the fishery.
			At the international level, *Convention (Article XXI)* specifies that the WCPFC shall promote transparency in the implementation of its *Convention* in decision making procedures and other activities. The mechanism is considered effective in dealing with most issues and is appropriate in the context of the US South Pacific albacore troll fishery. At the domestic level, legal disputes are conducted in a transparent manner. The US South Pacific albacore troll fishery has not be subject to legal dispute, however, experiences involving several other fisheries has demonstrated the mechanisms to be effective.
	c	**Y**	The management system or fishery is attempting to comply in a timely fashion within binding judicial decisions arising from any legal challenges.
			The assessment team is not aware of any legal challenges and related binding judicial decisions at the domestic or international levels regarding South Pacific albacore.
	d	**Y**	The management system has a mechanism to **observe** the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.
			Both the international and domestic systems for management have mechanisms to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2. At the international level WCPFC *Convention Article X* specifies the needs of small developing States, territories, etc. whose economies, food supplies, and livelihoods are dependent of the exploitation of marine resources must be taken in to account, *inter alia,* in developing criteria for allocation of TACs or total level of fishing effort or other management actions; *Article XXX* recognises the special requirements of developing states. At the domestic level, the conservation and management measures mandated by the MSA shall take into account the importance of fishery resources to fishing communities to provide for the sustained participation of, and minimize adverse impacts to such communities, consistent with conservation requirements.
100	**b**	**N**	The management system incorporates or subject by law to a **transparent** mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been **tested and proven to be effective**.

PI 3.1.1			**The management system exists within an appropriate legal and/or customary framework which ensures that it:** • **Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2;** • **Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and** • **Incorporates an appropriate dispute resolution framework.**
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			The management system at the international level incorporates transparent mechanisms in decision making processes and other activities. WCPFC *Convention Annex II* establishes the authority to set up a Review Panel to review decisions made by the Commission to settle disputes among members of the Commission. At the domestic level U.S. policy and law, e.g., MSA amendments, NEPA, ESA, etc., provide measures for resolution of legal disputes. However, the mechanism at the international level has not been tested and proven to be effective; at the domestic level the mechanism has been tested and proven effective in other fisheries. The fishery therefore doesn't fully meet this scoring issue.
	c	**Y**	The management system or fishery acts proactively to avoid legal disputes or rapidly implements binding judicial decisions arising from legal challenges.
			The auditors are not aware of any legal challenges and related binding judicial decisions at the domestic or international levels.
	d	**Y**	The management system has a mechanism to **formally commit** to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.
			At the international level, a number of WCPFC Convention Articles are relevant: *Convention Article V* specifies: In order to conserve and manage highly migratory fish stocks in the Convention Area in their entirety, the members of the Commission shall.... take into account the interests of artisanal and subsistence fishers; *Convention Article X* specifies: In developing criteria for allocation of the total allowable catch or the total level of fishing effort the Commission shall take into account, inter alia….the needs of coastal communities which are dependent mainly on fishing for the stocks; and *Convention Article XXX* specifies: The Commission shall take into account the special requirements of developing States Parties, in particular small island developing States, and of territories and possessions, in particular: ….the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and fishworkers. At the domestic level, conservation and management measures are mandated to take into account the importance of fishery resources to fishing communities to provide for the sustained participation of, and minimize adverse impacts to such communities, consistent with conservation requirements.
References			WCPFC Convention, Magnuson-Stevens Fishery Conservation and management Act and amendments
OVERALL PERFORMANCE INDICATOR SCORE:			**95**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.1.2

PI 3.1.2		The management system has effective consultation processes that are open to interested and affected parties. The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are **generally understood.**
			This scoring issue is met at the SG 100 level.
	b	**Y**	The management system includes consultation processes that obtain **relevant information** from the main affected parties, including local knowledge, to inform the management system.
			This scoring issue is met at the SG 100 level.
80	**a**	**Y**	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are **explicitly defined and well understood for key areas** of responsibility and interaction.
			Organizations and individuals involved in the management process have been identified and their respective functions, roles and responsibilities explicitly defined and well understood for key areas of responsibility and interactions at the international level by WCPFC *Convention Articles IX-XVI, and XXIII and XIV*]; and at the domestic level by the MSA and several amendments.
	b	**Y**	The management system includes consultation processes that **regularly seek and accept relevant** information, including local knowledge. The management system demonstrates consideration of the information obtained.
			The management system at both the international and domestic levels includes consultation processes that regularly seek and accept information including local knowledge and demonstrate consideration of the information obtained. At the international level, the WCPFC *Convention Article XXII* provides that the Commission will consult, cooperate and collaborate with other relevant organizations, particularly those with related objectives and which can contribute to the attainment of the objective of the Convention. At the domestic level, a transparent process for vetting domestic regulations and related actions are mandated to include all interested stakeholders.
	c	**Y**	The consultation process **provides opportunity** for all interested and affected parties to be involved.
			The consultation process of the management systems at both the international and domestic levels provides opportunities for all interested and affected parties to be involved. At the international level the WCPFC *Convention Article XXII* provides that the Commission will consult, cooperate and collaborate with other relevant organizations, particularly those with related objectives and which can contribute to the attainment of the objective of the Convention. Subject to Commission rules and procedures, representatives from NCPs, IGOs and NGOs may participate in Commission meetings and its subsidiary bodies as observers or otherwise as appropriate; have access to pertinent information subject to Commission rules and procedures; and, are permitted to give oral presentations and distribute papers through the Secretariat. Agendas for all meetings related to consultative processes are published in advance on the WCPFC website and other media. At the domestic level, a transparent process is mandated for vetting domestic regulations and related

PI 3.1.2		The management system has effective consultation processes that are open to interested and affected parties. The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			actions that includes all interested stakeholders. Agendas for meetings related to consultative processes are published in advance on websites and other media.
100	**a**	**Y**	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are **explicitly defined and well understood for key areas** of responsibility and interaction.
			At the international level the organizations and individuals involved in the management process have been identified and their respective functions, roles and responsibilities explicitly defined and well understood for key areas of responsibility and interactions by WCPFC *Convention Articles IX-XVI* and XXIII-XXIV. At the domestic level, the functions, roles and responsibilities of the various elements are explicitly defined and well understood for key areas of responsibility and interaction as mandated by the MSA and amendments to the MSA.
	b	**Y**	The management system includes consultation processes that **regularly seek and accept relevant** information, including local knowledge. The management system demonstrates consideration of the information and **explains how it is used or not used**.
			At the international level, WCPFC *Convention Article XXII* provides that the Commission will consult, cooperate and collaborate with other relevant organizations, particularly those with related objectives and which can contribute to the attainment of the objectives of the Convention. At the domestic level, the MSA mandates that regular processes be followed to seek and accept relevant information, including local knowledge, and defines how it is or is not to be used.
	c	**Y**	The consultation process **provides opportunity and encouragement** for all interested and affected parties to be involved, and **facilitates** their effective engagement.
			The management system includes consultation processes that provides for all interested and affected parties to be involved at the domestic and international levels. WCPFC *Convention Article XXII* provides that the Commission will consult, cooperate and collaborate with other relevant organizations, particularly those with related objectives and which can contribute to the attainment of the objectives of the *Convention*. At the domestic level, there are transparent processes for vetting domestic regulations and related actions that includes all interested stakeholders.
References			WCPFC Convention, Magnuson-Stevens Fishery Conservation and management Act and amendments

OVERALL PERFORMANCE INDICATOR SCORE:	**100**
CONDITION NUMBER (if relevant):	**N/A**

Evaluation Table: PI 3.1.3

PI 3.1.3		The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Principles and Criteria, and incorporates the precautionary approach	
SG	**Issue**	**Met? (Y/P/ N)**	**Justification/Rationale**
60	**a**	**Y**	Long-term objectives to guide decision-making, consistent with the MSC Principles and Criteria and the precautionary approach, are **implicit** within management policy
			• The fishery exceeds this level of performance.
80	**a**	**Y**	**Clear** long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach are **explicit** within management policy.
			• The fishery exceeds this level of performance.
100	**a**	**Y**	**Clear** long-term objectives that guide decision-making, consistent with MSC Principles and Criteria and the precautionary approach, are **explicit** within **and required by** management policy.
			Clear long-term objectives that guide decision-making at the international and domestic levels are consistent with MSC Principles and Criteria and the precautionary approach are explicit within and required by management policy at the international and domestic management levels. At the international level WCPFC *Convention Article VI* specifies that the Precautionary Approach shall be followed and provides guidelines for doing so. At the domestic level, NMFS incorporated precautionary concepts to ensure compliance with the Sustainable Fisheries Act 1996 that includes National Standards for conservation and management of fisheries in the US.
References			WCPFC Convention; Magnuson-Stevens Fishery Conservation and management amendments; Darcy & Matlock 1999.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.1.4

PI 3.1.4		The management system provides economic and social incentives for sustainable fishing and does not operate with subsidies that contribute to unsustainable fishing	
SG	**Issue**	**Met? (Y/P/ N)**	**Justification/Rationale**
60	**a**	**Y**	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2. The fishery exceeds this level of performance.
80	**a**	**Y**	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and seeks to ensure **that perverse incentives** do not arise. The management system at the international and domestic levels provide for incentives that are consistent with achieving outcomes expressed by MSC Principles 1 and 2. At the international level, a fundamental duty of the WCPFC is to promote conservation, sustainability and optimal utilization of HMS fish stocks using science-based information in developing and adopting specific measures to promote these objectives, as detailed in *Convention Articles IV and VI*. At the domestic level precautionary concepts to ensure compliance with the Sustainable Fisheries Act 1996, including National Standards for conservation and management of fisheries in the US, detail specific measures promoting sustainable fishing and the resulting stability and security for the fisheries helps to ensure that negative incentives do not arise. There are no subsidies in the U.S. South Pacific albacore troll fishery.
100	**a**	**N**	The management system provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2, and **explicitly considers** incentives in a **regular review** of management policy or procedures to ensure they not contribute to unsustainable fishing practices. • The management system at both the international and domestic levels provides for incentives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2 and ensures that management policies do not contribute to unsustainable fishing practices. • At the international level Scientific Committees established by the Conventions of each IFMO have duties which include reviews as needed of management policies to ensure that stocks managed by the respective IFMO are being managed using science-based information in a manner that promotes conservation, sustainability and optimal utilization. • At the domestic there are no regular reviews that explicitly considers incentives of the management policy to ensure that they do not contribute to unsustainable fishing practices. In conclusion, the fishery does not meet this level of performance as it cannot be said that 'regular reviews' are undertaken.
References			WCPFC Convention; Magnuson-Stevens Fishery Conservation and management Act and amendments; PFMC HMS/FMP; Darcy & Matlock 1999.
OVERALL PERFORMANCE INDICATOR SCORE:			**80**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.2.1

PI 3.2.1		The fishery has clear, specific objectives designed to achieve the outcomes expressed by MSC's Principles 1 and 2	
SG	**Issue**	**Met? (Y/PN)**	**Justification/Rationale**
60	**a**	**Y**	**Objectives**, which are broadly consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are **implicit** within the fishery's management system. The fishery exceeds this level of performance.
80	**a**	**Y**	**Short and long-term objectives**, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system. The fishery exceeds this level of performance.
100	**a**	**Y**	**Well defined and measurable short and long-term objectives**, which are demonstrably consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system. The fishery management systems at the international and domestic levels have explicit well-defined, clear, and specific objectives designed to achieve the outcomes expressed by MSC Principles 1 and 2. At the international level, the WCPFC *Convention* provides the regulatory framework that governs the Commission with a legal framework in accordance with UNCLOS, Agenda 21 and Rio Declaration, the FAO Compliance Agreement, the Code of Conduct and the UNFSA. *Article V* of the *Convention* specifies principles and measures for conservation and management of HMS stocks including: the concepts of the precautionary approach, use of best scientific evidence available in developing management measures, following the ecosystems approach, protection of biodiversity in the marine environment, adoption of measures to minimize waste, discards, pollution, catch of non-target species, etc. Also, IUU fishing is actively monitored and combated. At the domestic level the MSA and amendments, National Standards, other legislation include similar explicit, well defined short and long-term objectives which are consistent with achieving the outcomes express by MSC Principles 1 and 2. In addition, the mission statement of the AAFA states objectives which also are consistent with achieving the outcomes expressed by MSC Principles 1 and 2: "*AAFA is a non-profit organization representing commercial pole & troll vessels. AAFA seeks to ensure responsible fishery management practices and the participation of vital fishing communities. It supports education regarding responsible fishing methods and promotes the health benefits of tuna consumption along with environmental benefits of sustainable fishery practices. AAFA strives to ensure the economic viability of pole & troll fisheries now and into the future."* Finally, all AAFA members are required to agree to a Code of Conduct for responsible fishing, which has been developed by the AAFA.
References			WCPFC Convention; Magnuson-Stevens Fishery Conservation and management Act and amendments; PFMC HMS/FMP; AAFA Website www.americanalbacore.com
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.2.2

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	There are **some** decision-making processes in place that result in measures and strategies to achieve the fishery-specific objectives.
			The fishery exceeds this level of performance.
	b	**Y**	Decision-making processes respond to **serious issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take **some** account of the wider implications of decisions.
			The fishery exceeds this level of performance.
80	**a**	**Y**	There are **established** decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.
			There are established decision-making processes at the international and domestic levels that result in measures and strategies to achieve the fishery-specific objectives. At the international level, WCPFC *Convention Article XX* requires that decision-making to be by consensus, with few exceptions, which are well-defined and explained. At the domestic level, management decision-making processes are clearly outlined in the MSA and amendments.
	b	**Y**	Decision-making processes respond to **serious and other important issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.
			Decision-making processes at both the international and domestic levels respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. For example, at the international level, the WCPFC followed the precautionary approach in placing caps on the fishing capacity of Members, Cooperating Non-members, and Participating Territories whose fishing vessels harvest South Pacific albacore in the Convention Area (WCPFC *CMM 2005-3).* Although the WCPFC operates by consensus, these actions were taken in a timely manner in response to findings and recommendations made by the Scientific Committee using best available scientific information. At the domestic level, necessary actions were undertaken in response to the measures taken by the WCPFC for US vessels operating in the US albacore fishery to comply with the RFMO regulations.
	c	**Y**	Decision-making processes use the precautionary approach and are based on best available information.
			The precautionary approach and use of best scientific evidence available are used in decision-making processes at the international level as in WCPFC *Convention Articles V(c)* and *VI* and *V(b).* The precautionary approach and use of best scientific information available are used in decision-making processes at the domestic level as mandated by MSA amendments, National Standards, and US policy.

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
	d	**Y**	**Explanations** are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.
			Explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity. The WCPFC, appropriate NMFS offices and the Fishery Management Councils maintain publicly assessable websites where meeting minutes, reports, and scientific reports are posted and are freely available for download. These reports include information regarding emerging issues, research, reviews and actions taken. The fishery meets this level of performance.
100	**b**	**N**	Decision-making processes respond to **all issues** identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.
			There are established decision-making processes at the international and domestic levels for responding to serious, but not all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. The consideration of 'all' is a very high bar, however, and this means that the fishery does not meet this level of performance.
	d	**Y**	**Formal reporting** to all interested stakeholders describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.
			Formal reporting to all interested stakeholders describes how the management systems at both the international and domestic levels responded to findings and relevant communications emerging from research, monitoring, evaluation, and review activity. The WCPFC and appropriate NMFS offices and FMCs maintain publicly assessable websites where meeting minutes, reports, and scientific reports are posted and are freely available for download.
References			WCPFC Convention; WCPFC CMM 2005-3; Magnuson-Stevens Fishery Conservation and management Act and amendments;
OVERALL PERFORMANCE INDICATOR SCORE:			**90**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.2.3

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	Monitoring, control and surveillance mechanisms exist are implemented in the fishery under assessment and there is a reasonable expectation that they are effective.
			The fishery exceeds this level of performance.
	b	**Y**	Sanctions to deal with non-compliance exist and there is some evidence that they are applied.
			The fishery exceeds this level of performance.
	c	**Y**	Fishers are **generally thought** to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery.
			The fishery exceeds this level of performance.
80	**a**	**Y**	A monitoring, control and surveillance **system** has been implemented in the fishery under assessment and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.
			Monitoring, control and surveillance mechanisms exist and are implemented in the fishery at the international and domestic levels under assessment and there is a reasonable expectation that they are effective. At the international level, WCPFC *Convention Article XXV* establishes that each member of the Commission shall enforce the provisions of the Convention and any conservation and management measures issued by the Commission, *Article XXVI* establishes boarding and inspection procedures, *Article XXVII* establishes port-state inspection procedures which allows the port-state to prohibit landings and transhipment of catch and transhipment of catch taken through non-compliance, and *Article XXIX* outlines procedures for in-port and at-sea transhipment. Members of the WCPFC shall not grant a vessel authorization to fish if it is on the respective Convention's IUU vessel list. However, enforcement capabilities at the international level are limited and the area of responsibility is huge. At the domestic level, compliance with US regulations and violations of these are regularly monitored through the NOAA Fisheries Enforcement Office, US Coast Guard, and NOAA General Council Office, and in some cases by the Department of Justice. Compliance includes marine safety requirements, as well as fishery regulation, and enforcement is supported by training programs.
	b	**Y**	Sanctions to deal with non-compliance exist, **are consistently applied** and thought to provide effective deterrence.
			Sanctions to deal with non-compliance exist, are consistently applied and are believed to provide effective deterrence. This is especially the case at the domestic level. Actions available include a comprehensive scale of warnings; fines; forfeiture of catch, permits, and vessels; and incarnation.
	c	**Y**	**Some evidence exists** to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			Evidence exists to demonstrate that US South Pacific albacore fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery. There is ample evidence that US albacore troll and jig fishers comply with the management system, including fishers providing information of importance to the effective management of the fishery, e.g., daily logbook records, participation in conventional and electronic tagging programs, participation in collection of various data projects. Compliance reports are routinely prepared by the NOAA Fisheries Enforcement and NOAA General Council Offices and US Coast Guard and presented to the PFMC meetings
	d	**Y**	There is no evidence of systematic non-compliance.
			There is no evidence of systematic non-compliance by the US South Pacific albacore troll and jig fishery.
100	**a**	**N**	A **comprehensive** monitoring, control and surveillance system has been implemented in the fishery under assessment and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules.
			At the international level, WCPFC *Convention Article XXV* establishes that each member of the Commission shall enforce the provisions of the Convention and any conservation and management measures issued by the Commission, *Article XXVI* establishes boarding and inspection procedures, *Article XXVII* establishes port-state inspection procedures which allows the port-state to prohibit landings and transhipment of catch and transhipment of catch taken through non-compliance, and *Article XXIX* outlines procedures for in-port and at-sea transhipment. Members of the WCPFC shall not grant a vessel authorization to fish if it is on the respective Convention's IUU vessel list. A peer reviewer mentioned the need for a vessel monitoring system (VMS) to be activated on any vessel fishing in WCPFC waters south of 20^0 North. However, to the assessment team's knowledge this has not been a requirement on all the albacore troll/jig vessels and, even with an active VMS, enforcement capabilities at the international level are limited and the area of responsibility is huge. At the domestic level, compliance with US regulations and violations of these are regularly monitored through the NOAA Fisheries Enforcement Office, US Coast Guard, and NOAA General Council Office, and in some cases by the Department of Justice. Compliance includes marine safety requirements, as well as fishery regulation, and enforcement is supported by training programs. In conclusion, monitoring, control and surveillance mechanisms exist and are implemented in the fishery under assessment and there is a reasonable expectation that they are effective especially at the domestic level. However, the issues identified with comprehensive international monitoring, control and surveillance mean that the fishery does not meet this level of performance.
	b	**N**	Sanctions to deal with non-compliance exist, are consistently applied and **demonstrably** provide effective deterrence.

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the fishery's management measures are enforced and complied with	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
			Sanctions to deal with non-compliance exist and are consistently applied and provide effective deterrence. This is especially the case at the domestic level where actions available and applied include a comprehensive scale of warnings; fines; forfeiture of catch, permits, and vessels; and incarnation. However, due to the huge geographic area of the fisheries surveillance it is difficult to conclude that they demonstrably provide effective deterrence. As such, the fishery does not meet this level of performance.
	c	**Y**	There is a **high degree of confidence** that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery.
			There is a high degree of confidence that fishers comply with the management system under assessment, including providing information of importance to the effective management of the fishery. Also, there is ample evidence that US albacore fishers comply with the management system, including fishers providing information of importance to the effective management of the fishery, e.g., daily logbook records, participation in conventional and electronic tagging programs, participation in collection of various data projects. In addition, excellent record exists of the fishers providing reports of IUU fishing activities and gillnet-marked fish to US Coast Guard, NMFS enforcement officers, and other authorities. Compliance reports are routinely prepared by the NOAA Fisheries Enforcement and NOAA General Council Offices and US Coast Guard and presented to the PFMC meetings.
References			WCPFC Convention; HMS FMP and Compliance Guide posted on the NMFS SWR website at: http://swr.nmfs.noaa.gov;
OVERALL PERFORMANCE INDICATOR SCORE:			**90**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.2.4

PI 3.2.4		The fishery has a research plan that addresses the information needs of management	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	**Research** is undertaken, as required, to achieve the objectives consistent with MSC's Principles 1 and 2.
			The fishery exceeds this level of performance.
	b	**Y**	Research results are **available** to interested parties.
			The fishery exceeds this level of performance.
80	**a**	**Y**	A **research plan** provides the management system with a strategic approach to research and **reliable and timely information** sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.
			The fishery exceeds this level of performance.
	b	**Y**	Research results are **disseminated** to all interested parties in a **timely** fashion.
			The fishery exceeds this level of performance.
100	**a**	**Y**	A **comprehensive research plan** provides the management system with a coherent and strategic approach to research across P1, P2 and P3, and **reliable and timely information** sufficient to achieve the objectives consistent with MSC's Principles 1 and 2.
			Research is undertaken to achieve the objectives consistent with MSC Principles 1 and 2. At the international level WCPFC strategic planning for albacore research is the responsibility of the WCPFC Scientific Committee. The second five-year Strategic Research Plan for the years 2012-2016 is provided in WCPFC-SC7-2011/GN-WP-05. Strategic planning for domestic albacore research is guided by the program planning by the WCPFC Scientific Committee.
	b	**Y**	Research **plan** and results are **disseminated** to all interested parties in a **timely** fashion and are **widely and publicly available**.
			Research plan and results are disseminated to all interested parties in a timely fashion and are widely and publicly available. Research results are disseminated to all interested parties in a timely fashion at the international and domestic levels of the management system. All research results and related topics are posted on the respective RFMO websites, and are widely and publicly available for download. Many of the research results are also published in peer reviewed scientific journals and as government reports.
References			WCPFC-SC7-2011/GN-WP-05.
OVERALL PERFORMANCE INDICATOR SCORE:			**100**
CONDITION NUMBER (if relevant):			**N/A**

Evaluation Table: PI 3.2.5

PI 3.2.5		There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives There is effective and timely review of the fishery-specific management system	
SG	**Issue**	**Met? (Y/N)**	**Justification/Rationale**
60	**a**	**Y**	The fishery has in place mechanisms to evaluate **some** parts of the management system.
			The fishery exceeds this level of performance.
	b	**Y**	The fishery-specific management system is subject to **occasional internal** review.
			The fishery exceeds this level of performance.
80	**a**	**Y**	The fishery has in place mechanisms to evaluate **key** parts of the management system
			The fishery has in place mechanisms to evaluate key parts of the management system. At the international level, this evaluation may occur at numerous points in both RFMOs. For the WCPFC this includes 1) Scientific Committee with representatives of the Oceanic Fisheries Program of the Pacific Community, the IATTC, and frequently other scientific experts; 2) the Technical and Compliance Committee; 3) testimony received from stakeholders at WCPFC meetings. For the IATTC this includes1) Scientific Advisory Committee; 2) Committee for the Review of Implementation of Measures; 3) external scientific experts as needed; 4) testimony received from stakeholders at IATTC meetings. At the domestic level, the scientific system supporting is subject to internal and external reviews including, but not limited to: 1) NMFS oversight; and 2) ultimately, external oversight by the Secretary of Commerce.
	b	**Y**	The fishery-specific management system is subject to **regular internal** and **occasional external** review.
			The fishery-specific management system is subject to regular internal and occasional external review. At the international level, the scientific system supporting the management is subject to numerous internal and external reviews including, but not limited to: 1) those by the Scientific Committee established by WPCFC *Convention Article XII* with representatives of the Oceanic Fisheries Program of the Pacific Community, the IATTC, and frequently other scientific experts to review stock assessments, status of target, non-target and associated stocks, and scientific information and advice that may be provided by the Commission; 2) the Technical and Compliance Committee established by *Convention Article XIV* provides the Commission with information, technical advice, and recommendations related to the implementation and compliance with Conservation and Management Measures (CMMs); 3) *Convention Article XIII* provides for the Commission to engage external scientific experts to carry out periodic peer reviews of scientific information and advice provided by the Commission; 4) Members transmit to the Commission an annual statement of compliance measures, including imposition of sanctions it has taken for any violations; 5) the business and meetings of the WCPFC are transparent and conducted annually and as a consequence, the status of conservation and management objectives are the subject of review of public opinion and subsequent political ramifications. At the domestic level, the scientific system supporting is subject to internal and

			external reviews including, but not limited to: 1) peer review by outside experts of specific management actions and particularly controversial issues; 2) NMFS oversight; and 3) ultimately, external oversight by the Secretary of Commerce.
100	**a**	**N**	The fishery has in place mechanisms to evaluate **all** parts of the management system.
			The fishery has in place mechanisms to evaluate all parts of the management system, except those related to control rules and reference points, which although they have been investigated and specific recommendation made by the ISC ALBWG , have yet to be adopted by the RFMOs. The fishery therefore does not meet this scoring issue.
	b	**N**	The fishery-specific management system is subject to **regular internal and external review.**
			The fishery-specific management system is subject to regular internal review but not regular external review, and so the fishery does not meet this level of performance.
References			WCPFC Convention; WCPFC/SC stock assessments and science reviews; ISC Peer Review Requirement ISC/10/PLENARY/05; IATTC and WCPFC MOU;
OVERALL PERFORMANCE INDICATOR SCORE:			**80**
CONDITION NUMBER (if relevant):			**N/A**

Appendix 2: Conditions

Table 9: Condition 1

Performance Indicator	PI 1.1.2: Limit and target reference points are appropriate for the stock
Score	70
Rationale	**SG60:** • Generic limit and target reference points are based on justifiable and reasonable practice appropriate for the species category. **SG 80:** • Reference points are appropriate for the stock and can be estimated. • The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity. • The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome. • Key low trophic level species, the target reference point takes into account the ecological role of the stock. **SG100:** • The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity following consideration of precautionary issues. • The target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome, or a higher level, and takes into account relevant precautionary issues such as the ecological role of the stock with a high degree of certainty. A variety of reference points have been considered for the South Pacific albacore stock, and analyses show that the stock is performing well. However, the existing management benchmarks are implicit only. This means that the fishery cannot meet the SG 80 level of performance, although the fishery scores 70 for this Performance Indicator.
Condition	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if the limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity, and if the target reference point is such that the stock is maintained at a level consistent with B_{MSY} or some measure or surrogate with similar intent or outcome.
Milestones	**Year 1:** • In conjunction with Condition 2, evidence should be provided that AAFA is working actively through the FMCs and US RFMO Delegations to promote the adoption by the relevant RFMOs of appropriate target and limit

	reference points (or measures/surrogates with similar intent) for South Pacific albacore tuna. **Year 2:** • In conjunction with Condition 2, evidence should be provided of AAFA's continued promotion through the FMCs and US RFMO Delegations of the adoption by the relevant RFMOs of appropriate target and limit reference points (or measures/surrogates with similar intent) for South Pacific albacore tuna. **Year 3:** • Evidence of consideration by the relevant RFMOs of appropriate target and limit reference points (or measures/surrogates with similar intent) for South Pacific albacore tuna should be provided. **Year 4:** • Evidence should be provided that appropriate target and limit reference points (or measures/surrogates with similar intent) for South Pacific albacore tuna are adopted by the relevant RFMOs.
Client action plan	**MSC PI 1.1.2 - Target and limit reference points** • In the first year following grant of recertification, and thereafter as necessary, AAFA will work actively through the FMCs and the US RFMO delegations to promote the development and determination of appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) for the South Pacific albacore tuna stock. These efforts will be aligned with AAFA's support for appropriate measures to increase compliance with conservation and management measures of the appropriate RFMOs. • In the second year following grant of recertification, and thereafter as necessary, AAFA will work actively through the FMCs and the US RFMO delegations to promote the adoption of appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) for the South Pacific albacore tuna stock. • In the third year following grant of recertification, and thereafter as necessary, AAFA will work actively toward having the relevant RFMOs (or their designated bodies) expressly consider appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) for the South Pacific albacore tuna stock. • In the fourth year following grant of recertification, and thereafter as necessary, AAFA will work actively toward having the relevant RFMOs adopt appropriate target and limit reference points (or measures or surrogates with similar intent or outcome) for the South Pacific albacore tuna stock. • In accordance with these actions, AAFA will report on efforts to explore appropriate opportunities with other tuna fisheries, associations, or organizations with complimentary objectives.
Consultation on condition	This condition requires action to be taken by a body other than AAFA, with the required outcome being that the RFMOs adopt appropriate reference points (or measures/surrogates with similar intent) for South Pacific albacore. This will come about through political and management dialogue between country representatives,

	rather than through a simple series of steps that can be agreed prior to certification. As such, AAFA has been and will need to continue working with relevant US regional and national managers in order to generate support for meeting the requirements of this condition. It may be noted that the IATTC and WCPFC staffs have been kept informed of AAFA's progress through the certification process, and that AAFA has been developing links in to the RFMO process for several years. In meeting CR requirements to show evidence that the relevant bodies have been consulted (MSC CR 27.11.3) and that funding and/or resources are in place to address Conditions (MSC CR 27.11.4), IMM is satisfied that the PFMC and US Delegations to the RFMOs are engaged in improving the management of the fishery, that the necessary research budgets are in place to address the work, and that meetings will be scheduled and held as required. As such, certification can be awarded.

Table 10: Condition 2

Performance Indicator	**1.2.2: There are well defined and effective harvest control rules in place**
Score	60
Rationale	**SG60:** • Generally understood harvest rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached. • There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation. **SG 80:** • Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. • The selection of the harvest control rules takes into account the main uncertainties. • Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules. **SG100:** • Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached. • The design of the harvest control rules takes into account a wide range of uncertainties. • Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.

	There is a general understanding that a harvest control rule for South Pacific albacore tuna will be implemented when the stock approaches or falls below the MSY point, based around controlling fishing effort and capacity. However, the precise point when action will be taken and exactly what action will be taken is not defined. This means that the fishery cannot meet the SG 80 level of performance, although the fishery scores 60 for this Performance Indicator.
Condition	By the end of the fourth year of certification, the SG 80 scoring requirements above must be met in full. This will be achieved if well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached, the selection of the harvest control rules takes into account the main uncertainties, and available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.
Milestones	**Year 1:** • In conjunction with Condition 1, evidence should be provided that AAFA is working actively through the FMCs and US RFMO Delegations to promote the adoption by the relevant RFMOs of an appropriate harvest control rule for South Pacific albacore tuna. **Year 2:** • In conjunction with Condition 1, evidence should be provided of AAFA's continued promotion through the FMCs and US RFMO Delegations of the adoption by the relevant RFMOs of an appropriate harvest control rule for South Pacific albacore tuna. **Year 3:** • Evidence of consideration by the relevant RFMOs of an appropriate harvest control rule for South Pacific albacore tuna should be provided. **Year 4:** • Evidence should be provided that an appropriate harvest control rule for South Pacific albacore tuna is adopted by the relevant RFMOs.
Client action plan	**MSC PI 1.2.2 - Well-defined and effective harvest control rules** • In the first year following grant of recertification, and thereafter as necessary, AAFA will work actively through the FMCs and the US RFMO delegations to promote the development and determination of an appropriate harvest control rule that applies uniformly and equitably to all fishery mortality of South Pacific albacore tuna stock. • In the second year following grant of recertification, and thereafter as necessary, AAFA will work actively through the FMCs and the US RFMO delegations to promote the consideration toward adoption of such an appropriate harvest control rule for South Pacific albacore tuna stock. • In the third year following grant of recertification, and thereafter as necessary, AAFA will work actively toward having the relevant RFMOs (or their designated bodies) expressly consider such an appropriate harvest control rule for South Pacific albacore tuna stock. • In the fourth year following grant of recertification, and thereafter as necessary, AAFA will work actively toward having the relevant RFMOs adopt such an

	appropriate harvest control rule for South Pacific albacore tuna stock. • In accordance with these actions, AAFA will report on efforts to explore appropriate opportunities with other tuna fisheries, associations, or organizations with complimentary objectives.
Consultation on condition	This condition requires action to be taken by a body other than AAFA, with the required outcome being that the RFMOs adopt appropriate harvest control rules for North Pacific albacore. This will come about through political and management dialogue between country representatives rather than through a simple series of steps that can be agreed prior to certification. As such, AAFA has been and will need to continue working actively with relevant US regional and national managers in order to generate support for meeting the requirements of this condition. It may be noted that the IATTC and WCPFC staffs have been kept informed of AAFA's progress through the certification process, and that AAFA has been developing links in to the RFMO process for several years. In meeting CR requirements to show evidence that the relevant bodies have been consulted (MSC CR 27.11.3) and that funding and/or resources are in place to address Conditions (MSC CR 27.11.4), IMM is satisfied that the PFMC and US Delegations to the RFMOs are engaged in improving the management of the fishery, that the necessary research budgets are in place to address the work, and that meetings will be scheduled and held as required. As such, certification can be awarded.

Appendix 3: Assessment advertisement placed in the San Diego Daily Tribune

CERTIFICATE OF PUBLICATION

Rob Blyth-Skyrme
Ichthy Marine Ecological Consulting Incorporated
328 Dalene Way, #1
HONOLULU HI 96821

IN THE MATTER OF

Marine Stewardship Council

CASE NO.

Marine Stewardship Council Certification
American Albacore Fishing Association (AAFA) North Pacific Albacore Pole & Line and Troll/Jig Fishery, and South Pacific Albacore Troll Fishery.

Intertek Moody Marine Ltd are currently undertaking an assessment of the above fisheries against the Marine Stewardship Council's Principles and Criteria for Sustainable Fishing. We would welcome the views of interested parties on the suitability of these fisheries for certification. Please forward any comments to: Dr. Rob Blyth-Skyrme, Intertek Moody Marine Ltd. Tel: +1 808 351 0050, E-mail: rob@ichthysmarine.com. Please note that a template for stakeholder input has been provided by the Marine Stewardship Council, and is available at: http://www.msc.org/documents/get-certified/stakeholders
Pub. Sept. 26, 27, 28-00091440

I, Marcela Aguayo, am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not party to or interested in the above entitled matter. I am the principal clerk of the San Diego Daily Transcript, a newspaper of general circulation, printed and published daily, except on Saturdays and Sundays, in the City of San Diego, County of San Diego and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of San Diego, State of California, under the date of January 23, 1909, Decree No. 14894; and the

Public Notice

is a true and correct copy of which the annexed is a printed copy and was published in said newspaper on the following date(s), to wit:

September 26, 27, 28

I certify under penalty of perjury that the forgoing is true and correct.

Dated at San Diego, California this September 28, 2011

Marcela Aguayo
Signature

Appendix 4: Assessment advertisement placed on the MSC website

American Albacore Fishing Association North Pacific Albacore Pole & Line and Troll/Jig Fishery

MSC Certification: 4th Surveillance Audit
MSC Certification: Re-Assessment

Certification Body: Intertek Moody Marine

Site Visit

This fishery is now entering the 'information gathering' stage of the 4th surveillance audit and reassessment against the MSC *Principles and Criteria for Sustainable Fishing*. A key purpose of this stage is to collect information on the fishery and speak to stakeholders with an interest in the fishery under audit and assessment. The assessment team will therefore convene in San Diego over the period **26th – 28th October 2011**, when we aim to hold face-to-face meetings with stakeholders, or to arrange conference telephone/skype calls if preferred.

Stakeholders who previously submitted comments on this fishery have been contacted directly, but MSC procedure allows stakeholders 30 days notice of a site visit and 5 days for MSC to post the notice on the MSC website. The 26th – 28th October 2011 is within 30 days of this notification, and so alternative dates for stakeholders to speak with the assessment team could be arranged for the **23rd – 24th November 2011**. Again, and for the convenience of all parties, stakeholders can also make their submissions to the assessment team via email or telephone/skype calls.

If you have any information on this fishery that you feel should be considered in the assessment, please advise us of:

a) your name and contact details
b) your association with the fishery
c) the issues you would like to discuss (in order for us to arrange appropriate representation)
d) when you would like to meet

We will then be in touch.

Should you wish to obtain further information on the Marine Stewardship Council, this is available on their web site at http://www.msc.org. The MSC has also produced a template for stakeholder input, which is available from their web site here: http://www.msc.org/documents/scheme-documents/forms-and-templates/msc-template-for-stakeholder-input-into-fishery-assessments/view. The assessment team will, though, consider all points, however they are raised.

As a certification body, Intertek Moody Marine has dispute resolution procedures available should these prove necessary.

Yours,

Dr. Rob Blyth-Skyrme
Lead Assessor
E-mail: rob@ichthysmarine.com
Tel: +1 808 351 0050

Intertek Moody Marine
Merlin House
Stanier Way
The Wyvern Business Park
Derby. DE21 6BF

Appendix 5: Harmonisation check against relevant MSC-certified fisheries

Table 11: Harmonisation review for those Performance Indicators where a score of 15 points or more difference between the AAFA and WFOA or NZ scores is proposed.

PI	Fiji longline (in assessment)	NZ (certified 2011)	AAFA South Pacific (proposed)	Key Differences
1.1.1	100	100	100	N/a
1.1.2	75	75	70	N/a
1.1.3	N/a	N/a	N/a	N/a
1.2.1	80	80	80	N/a
1.2.2	60	60	60	N/a
1.2.3	80	80	90	N/a
1.2.4	85	85	85	N/a
2.1.1	70	90	100	The Fiji fishery has a number of main retained species, including depleted oceanic whitetip shark, whereas the AAFA fishery has none.
2.1.2	75	95	100	The retained sharks in the Fiji fishery affect the score.
2.1.3	75	85	95	There is considered to be insufficient information in the Fiji fishery to assess ongoing mortality of shark species.
2.2.1	80	85	100	Below average recruitment in the sardine bait stock for Fiji reduces the score, while the NZ fishery is considered to include a partial retained species strategy.
2.2.2	95	80	90	N/a
2.2.3	100	80	80	Bycatch information in the AAFA fishery is not comprehensive.
2.3.1	85	85	85	N/a
2.3.2	90	95	80	The level of observer coverage in the AAFA fishery is low.
2.3.3	60	80	80	The AAFA fishery is considered to be very low risk, so meeting the SG80 level.
2.4.1	100	100	100	N/a
2.4.2	100	100	100	N/a
2.4.3	100	100	100	N/a
2.5.1	80	95	100	The level of evidence in the Fiji fishery is considered to be lower, with knowledge of the role of albacore within the ecosystem highlighted.
2.5.2	80	80	80	N/a
2.5.3	85	80	100	The AAFA fishery is simply considered to meet the higher SG100 level.
3.1.1	95	95	95	N/a
3.1.2	90	95	100	N/a
3.1.3	90	80	100	Long-term objectives are explicit and required, so meeting the SG100 level.
3.1.4	80	80	80	N/a
3.2.1	80	70	100	There was no FMP in place for the NZ fishery, but the US fishery is considered to include domestic management that meets the SG100 level.
3.2.2	90	90	90	N/a
3.2.3	70	90	90	In the Fiji fishery, it is considered that there is only some evidence that sanctions to deal with non-compliance exist.
3.2.4	90	80	100	Following peer review, the comprehensiveness of the research plan was re-reviewed and was considered to meet the SG 100 level of performance.
3.2.5	80	80	80	N/a

Appendix 6: NMFS letter of support for AAFA actions

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

OCT - 4 2012

Ms. Natalie Webster
Director of Operations
American Albacore Fishing Association
4364 Bonita Road, #311
Bonita, California 91902

Dear Ms. Webster:

This letter responds to the American Albacore Fishing Association's (AAFA) request for support of its action plans to meet conditions associated with its re-assessment for sustainable fishery certifications by the Marine Stewardship Council. NOAA's National Marine Fisheries Service (NOAA Fisheries) has reviewed AAFA's action plans proposed over the course of the certification. The agency is pleased that AAFA recognizes the importance of and supports efforts to develop biological reference points and appropriate harvest control rules that would apply to all fishery mortality for both the North Pacific and South Pacific albacore stocks. The agency welcomes AAFA's proposal to work cooperatively through the U.S. delegations to the Inter-American Tropical Tuna Commission, the Western Central Pacific Fisheries Commission, and the Pacific Fishery Management Council to promote the development and adoption of appropriate reference points and control rules. These actions are key to the development of a precautionary-based management framework for both albacore stocks.

Sincerely,

Rodney R McInnis

Rodney R. McInnis
Regional Administrator

Appendix 7: Initial letter from the World Wildlife Fund

World Wildlife Fund
Fisheries
1250 24th St. NW
Washington, DC 20037-1193
Main Phone: 202-293-4800
Fax: 202-223-6971

worldwildlife.org

27 October, 2011

Dr. Rob Blyth-Skyrme
Intertek Moody Marine
Merlin House, Stanier Way
Wyvern Business Park
Derby DE21 6BF
UK

Subject: **American Albacore Fishing Association (AAFA) North Pacific Albacore Pole & Line and Troll/Jig Fishery, and**
American Albacore Fishing Association (AAFA) South Pacific Albacore Pole & Line and Troll/Jig Fishery

Dear Dr. Blyth-Skyrme:

WWF welcomes the opportunity to engage as a stakeholder in the assessment for re-certification of the AAFA North and South Pacific albacore pole & line and troll/jig fisheries. We have the following concerns regarding the re-assessments:

1. Stock Status. Some of the Principle 1 (P1) indicators are not met by any of the regional fishery management organizations (RFMOs) for tuna, including the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC), which are responsible for the management of the North Pacific and South Pacific albacore stocks. For example, while there is an implicit reference point in the treaties establishing these two RFMOs, it is not precautionary, nor is it adopted formally by the RFMOs, nor is it explicitly designated as either the target or limit reference point. These are required in order for a fishery to meet the MSC Standard. WWF is aware that in the case of the WCPFC and North Pacific albacore stock that an interim working reference point has been used as a proxy for BMSY, but again this does not meet the stringent MSC requirement of having two precautionary reference points, both target and limit. In addition, there are similar shortcomings against the FAM for a harvest control rule tied explicitly to the reference points and an over-arching specific fishery management plan for the stocks. There are other less obvious P1 deficiencies that stem from the RFMOs' management that WWF looks forward to reviewing in the draft assessment reports.

2. Previous Conditions. The current certifications for these two stocks were based on one or more conditions. WWF believes that, based on its review of the records available to it and knowledge of the actions of the client, these conditions have not been met. WWF's information may be incomplete and it looks forward to reviewing material presented by the client as a basis for moving forward into re-certification. WWF recognizes that the formal MSC guidelines with regard to conditions and, indeed,

the FAM itself have been substantially strengthened since the time of AAFA's initial certification (i.e., FAM v.2 and TAB Directive 033). However, even though the current conditions for the two units of certification (UoCs) are not articulated as explicitly as is now required by the MSC, the conditions as stated – and the spirit of the MSC standard – were not met. Looking forward, should the client again be certified with conditions, WWF points out that the conditions imposed on the New Zealand albacore fishery serve as a good example for tuna fisheries, especially because they require the firm official commitment of the government of New Zealand to represent the fishery at the WCPFC since the RFMO is comprised of sovereign governments and affords little to no direct stakeholder involvement. WWF believes that a similar commitment from the UoC's national government should be required in order to meet conditions that involve changes at the RFMO level.

3. Bait fishes. For the pole & line component of the fishery, bait fishes are required for the fishery to even exist much less be sustainable, and therefore are a target species that should be included in the UoCs and assessed under P1. Furthermore, WWF is opposed to assessing impacts on bait fishes under Principle 2 of the default FAM as an alternative to including them in the UoC. For the pole & line fishery to be truly sustainable, bait fishes must be managed at least as well as the albacore themselves. Since the bait fishes used are low trophic level species in the ecosystem, TAB Directive 036 (Assessment of Low Trophic Level Fisheries) applies, providing reasonable guidance on default reference points for bait fishes. WWF believes that the best course is to include bait fishes in the UoCs and assess them under P1 but, failing that, TAB Directive 036 provides excellent guidance for appropriately modifying the FAM to ensure that bait fishes will be managed at a level that meets the MSC standard.

4. Management Levels. For fish stocks to be sustainable and meet the MSC standard they must be adequately managed throughout their range. For the Pacific albacore stocks, the legally competent bodies to accomplish this are the IATTC and WCPFC. Also of critical importance are national, regional, and local jurisdictions, but these are of decreasing importance due to the pan-Pacific nature of the albacore stocks. This entire cascade of legal structure starting with the RFMOs needs to be assessed under Principle 3. The top body, or RFMO, that jointly covers the range of each stock is of utmost importance and needs to be weighed accordingly when assessing Principle 3.

While it is unlikely that anyone from WWF will personally attend the site visits due to schedule conflicts, this does not reflect any lack of interest in ensuring that Intertek Moody Marine completes the best, most rigorous assessments possible. WWF looks forward to explicit responses to our concerns as expressed here and to engaging in the assessments.

Best Regards,

William W. Fox, Jr., Ph.D.
Vice President, Fisheries
WWF-US

Appendix 8: Initial letter from the International Seafood Sustainability Foundation

International Seafood Sustainability Foundation

6 October, 2011

Dr. Rob Blyth-Skyrme
Intertek Moody Marine
Merlin House, Stanier Way
Wyvern Business Park
Derby DE21 6BF
UK

Subject: American Albacore Fishing Association (AAFA) North Pacific Albacore Pole & Line and Troll/Jig Fishery, and
American Albacore Fishing Association (AAFA) South Pacific Albacore Pole & Line and Troll/Jig Fishery

Dear Dr. Blyth-Skyrme:

ISSF welcomes the opportunity to provide input as a stakeholder in the re-certification assessment of these two fisheries. We have the following concerns that we hope will be adequately assessed in the reassessments:

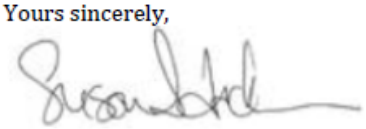
1) Conditions. The intent of the MSC is that conditions should normally be closed out within the period of certification. This is not the case for the AAFA albacore fisheries and, in our understanding, there is not even evidence that adequate progress has been made towards adoption of reference points, harvest strategies and control rules. The conditions in the original assessments were simply too weak and unrealistic in the expectation that the Client would be able to influence RFMOs to adopt these for the Pacific albacore stocks. Still, we recognize the fact that MSC guidance on condition setting and recertification was not very clear at the time of the original assessment. We request, however, that the new assessment takes this problem very seriously into consideration. If the new assessments recommend MSC certification again, it is imperative to follow TAB Directive 033 (Condition Setting and Reporting) with achievable milestones. In this sense, we recommend that the assessment team look at the language in the conditions placed on the certification of the New Zealand albacore troll fishery.

2) Baitfish management. For the pole and line component of the fishery, we are against following the FAM default scoring guidelines for baitfish under Principle 2. Since baitfish are required for the fishery, it is imperative that they be managed just as well as albacore. And, their role as low trophic level species in the ecosystem needs to be addressed as well. We believe that TAB Directive 036 (Assessment of Low Trophic Level Fisheries) provides good guidance on default reference points for baitfish populations and we recommend that the assessment team use these standards instead of the default FAM scoring guidelines.

International Seafood Sustainability Foundation P.O. Box 11110 McLean, VA 22102
P: 703-226-8101 F: 703-226-8100 SJackson@ISS-Foundation.org www.ISS-Foundation.org

3) The role of the RFMOs under Principle 3. ISSF is of the view that the role of the RFMOs in managing highly migratory species like albacore is if utmost importance. The re-assessment of these fisheries needs to take this into account by giving higher weight to the management framework and performance at the RFMO level than at the national level.

Yours sincerely,



Susan S. Jackson
President

Cc: R. Howes
V. Restrepo
W. Fox
B. Ack

International Seafood Sustainability Foundation P.O. Box 11110 McLean, VA 22102
P: 703-226-8101 F: 703-226-8100 SJackson@ISS-Foundation.org www.ISS-Foundation.org

Appendix 9: Peer Review Report #1

Overall Opinion

Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?	**Yes**	**Conformity Assessment Body Response**
Justification: *The findings of the certification report are appropriate and the conditions and recommendation are in accordance with material presented in the report.*		Noted and thank you.

Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe?	**No**	**Conformity Assessment Body Response**
Justification: *The conditions raised are necessary and appropriate to achieve SG80 outcomes, noting that actions are required by a body other than the client and that required outcomes involve adoption of appropriate measures by the RFMO.* *The suggested outcomes for the conditions are in accordance with other albacore fisheries in the region. However, the MSC Guidance to Certification Requirements suggests that timelines should be harmonized with those of overlapping fisheries (the New Zealand albacore troll fishery and the Fiji albacore longline fishery) (GCI 1.4).*		Noted and thank you on the necessity of the two conditions and on the need for the action to be taken by a body other than the client. On harmonization, the CR (V.1.2) states At Section Cl3.1 that '*CABs assessing overlapping fisheries shall ensure consistency of outcomes so as not to undermine the integrity of MSC fishery assessments*', while the guidance provided in The GCR (V1.1) at Section GCI 1.6 is that '*MSC expects that the outcome of the assessment, particularly the overall result that is achieved (whether a pass or a fail) and the setting of conditions, will be consistent between overlapping fisheries in assessment and certified fisheries*'. The assessment team contends that the outcomes are consistent between the Conditions placed on the New Zealand and AAFA South Pacific albacore fisheries (i.e., reference points (for PI 1.1.2) and harvest control rules (for PI 1.2.2) must be adopted in order for the Conditions to be closed out). However, it is also the assessment team's contention that, on timelines, the AAFA fishery justifies an additional year to meet the Conditions because of the need to engage two RFMOS (WCPFC and IATTC) rather than the single RFMO (WCPFC) that the New Zealand fishery (and the Fiji albacore fishery, if certified) must engage in order to meet their Conditions. Therefore, the AAFA assessment team continues to advocate and accept a four year timeline to close the two Conditions proposed.

If included:

Do you think the client action plan is sufficient to close the conditions raised?	**Yes**	**Conformity Assessment Body Response**
Justification: *The client action plan is sufficient to close the conditions, although the issue of the timeline raised above will need to be addressed. In addition, the client action plan would benefit from the addition of activities to promote collaboration with other interested industry sectors and NGOs to assist the adoption of the necessary outcomes.*		Noted and thank you on the Client Action Plan. On the issue of harmonization, please see the CAB response against the conditions, in the box above. On the promotion of collaboration, it is noted that a statement in the Client Action Plan is that '*AAFA will report on efforts to explore appropriate opportunities with other tuna fisheries, associations, or organizations with complimentary objectives*.' Although this is non-specific regarding activities to promote collaboration, it is the assessment team's contention that being specific at this time is not feasible. However, we agree that, should the AAFA fishery be certified, such activities will likely be important if the Conditions are to be met.

General Comments on the Assessment Report (optional)

The certification report is well presented and provides clear and concise information to support the assessment of each feature of the fishery against the three MSC Principles. In general, I agree with the majority of the scoring for the fishery and have made few suggestions for changes to the report.

IMM Response: Noted and thank you. The assessment team has provided detailed comments against each of the comments below.

Whilst I have agreed with the majority of the comments and scoring in the report, overall I feel there is insufficient discussion of the uncertainties in the albacore tuna stock assessment.
Hoyle (2011) highlights concerns over declining longline catch rate trends as well as aspects of the model fitting and structure (for example, conflict between length frequency and catch rate information; differences in growth rates between male and female albacore). Although the overall conclusions based on the estimated management parameters are that the stock is not overfished or subject to overfishing, further discussion of the uncertainties in the assessment is warranted. In addition, there is no acknowledgement of recent substantial increases in catches of albacore. Estimated annual catch has risen from approximately 51,600 t in 2008 to 71,400 t in 2010 (WCPFC 2012). If similar increases in catch occur over coming years there may be need for further measures by WCPFC to restrict catch and effort, further emphasizing the need for the development and implementation of appropriate harvest control rules.

IMM Response: The issues identified above may be summarized as, a) Discussion on uncertainties in the stock assessment (including sex-specific growth rates, etc.), b) Declining longline catch trends, c) increasing overall catches, and d) Adequacy of harvest control rules. These are addressed separately against specific PIs below.

Using the "MSC_Fishery_Assessment_Worksheet_v1" I estimate the overall score for P1 to be 81.9 rather than the 80.8 presented on page 7 and in Table 7 of the report. The P3 score is also rounded to a slightly different, at 92.9 rather than 92.8.

IMM Response: The scores for a number of PIs have been changed as a result of the comments received from the peer reviewers and because of issues concerning partial scoring. As such, the confirmed draft scores have been revised such that, using the MSC's scoring worksheet, Principle 1 is now scored 81.9, Principle 2 is scored 92.7, and Principle 3 is scored 92.9.

WCPFC (2012). South Pacific Albacore Fishery. WCPFC Commission Eight Regular Session. WCPFC-SC8-2012/ SC8-WCPFC806.

Performance Indicator Review

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.1	*Yes*	*Yes*	*NA*	*I agree that the score given accurately reflects available information on stock status presented in the report. However, there is little acknowledgement of the uncertainty in the assessment. Given this uncertainty and recent increases in catches, it is important that this performance indicator be closely monitored in future assessments/audits.*	*Noted and thank you.* *The assessment report included details on the South Pacific albacore stock assessment in Section 3.3.3, but there was less information provided in the scoring text for this PI. Some of the details have now been included in the scoring text for clarity, specifically that there is some uncertainty in M and sex-related growth.*
1.1.2	*Yes*	*Yes*	*Yes (note comment re harmonization)*	*Assessment advice to the WCPFC provides a range of indicators that can appropriately provide the basis for target or limit reference points. The lack of formally adopted target and limit reference points approriately leads to a score of 70 for this PI and the generation of a condition. The actions suggested by the condition*	*Noted and agreed on the score, thank you.* *The assessment team agrees with the peer reviewer that actions suggested by the Condition would benefit from collaboration with other interested parties. However, as noted against the peer reviewer's earlier comments on the Conditions, the assessment team does not believe that it is feasible to be specific on*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				would benefit from collaboration with other interested parties to bring about adoption of necessary measures through WCPFC. In addition, MSC Guidelines suggest there should be harmonization of the timelines of the condition with other overlapping fisheries.	*collaborations at this time. It should be noted, though, that should the fishery be certified then progress towards meeting the Condition should be reviewed very carefully at annual surveillance audits.* *On harmonisation, please also see the earlier comments on timlines, which the AAFA South Pacific assessment team contends should remain at four years for the stated reason.*
1.1.3	*NA*	*NA*	*NA*		
1.2.1	*Yes*	*No*	*NA*	*The score of 80 requires not just that elements of the harvest strategy exist (i.e. monitoring, assessment, management etc) but that they "work together". There is insufficient information given on how the elements of the harvest strategy work together to achieve management objectives. Although, as the assessors suggest,*	*A similar comment was noted by the other peer reviewer.* *On the harvest strategy, the assessment team noted the lower CPUE in some longline fleets and the high catch levels overall in comparison to historical levels in Section 3.3.3. However, we also noted that the albacore stock is not overfished nor experiencing overfishing, and*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				current approaches are adequate given the state of the stock, recent increases in catches suggest that the harvest strategy may need to be more responsive.	*that since the 2004-2005 reference period, catches in the troll/jig fishery have changed to a negligible amount while there has also been a negligible change in the impact of the fishery on the total albacore stock biomass and spawning potential. As such, the team considers that the score of 80 continues to be justified.* *Nevertheless, should the fishery be certified, it is our expectation that this issue should be one of interest during annual assessments.*
1.2.2	*Yes*	*Yes*	*Yes (note comment re harmonization)*	*The scoring appropriately reflects that SG80 requirements are not met and the suggested condition should improve the fishery's performance. However, the actions suggested by the condition would benefit from collaboration with other interested parties to bring about adoption of necessary measures through WCPFC. In addition, MSC Guidelines suggest*	*Noted and thank you on the suggested condition.* *On collaboration and timelines, please see the comments at the start of this review and against PI 1.1.2, which apply equally here.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				there should be harmonization of the timelines of the condition with other overlapping fisheries.	
1.2.3	*Yes*	*No*	*NA*	*The SG80 scoring issues are met satisfactorily. However, the partial support given to there being "a comprehensive range of information" is questionable. Assessment outcomes are sensitive to assumptions about steepness and natural mortality, and recent research has highlighted the difference in growth rates between the sexes which are not adequately accounted for in the assessment.*	*Based on a review of MSC Guidance, the assessment team removed the award of a partial score for SI 100a. Instead, and following careful consideration of the data elements required, the assessment team considers that the fishery meets the SG80 level of performance for this SI but not the 100 level of performance requiring a comprehensive range of informaiton.* *On the issue of information related to the stock assessment, which is more specific to SI 100b, the team considers that the fishery meets the SG 100 level of performance. The team notes that the assessment model MULTIFAN-CL provides good analysis and information related to uncertainty on sex-specific growth and M. While the team believes that definitive differential sex-specific growth rates for*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
					albacore have not appeared in the peer-reviewed literature, results (e.g. from Williams et al. 2012, reference below) suggest that further research deserves close tracking. *Overall, this PI is scored at 90.* *Williams A.J., Farley J.H., Hoyle S.D., Davies C.R. & S.J. Nicol (2012). Spatial and sex-specific variation in growth of albacore tuna (Thunnus alalunga) across the South Pacific Ocean. PLoS ONE 7(6): e39318. doi:10.1371/journal.pone.0039318*
1.2.4	*Yes*	*Yes*	*NA*	*Information provided supports the scores given for this PI. As suggested by the certifier, the assessment would benefit from formal peer review.*	*Noted and thank you. However, the score for this PI has been reduced to 85 upon review.*
2.1.1	*Yes*	*Yes*	*NA*	*The information and rationale given to support the overall score for this PI are adequate. However, given the paucity of observer data for the fishery, I*	*While the absence of recent observer coverage was certianly noted by the assessment tema, and independent data would provide further support for scoring the P2 elements for the*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				suggest that a recommendation is warranted that opportunities to undertake observer work for the fishery be investigated to support future P2 assessment.	*fishery, it is noted in the assessment report against PI 2.1.3 that 'Additional management measures are not currently warranted (NMFS 2012), and there was no recommendation to increase observer coverage or data collection in the fishery (e.g. NMFS 2011a).'* *In addition, and given the difficulty and practicality of observing the fishery when such long travel times are invloved, it was not felt that a recommendation on increasing the observer coverage was appropriate.*
2.1.2	*Yes*	*Yes*	*NA*	*As for 2.1.1.* *Information provided refers to tables with zero catch information for retained species with annual catches less than 0.5 t. I am not familiar with the logbboks used but assume the detailed information of (verified?) catch by species would be available for examination if required.*	*Noted and thank you.* *Although more detailed data may be available, the assessment team has not sought such access because the very low catches mean that their value in the context of the reassessment is very limited.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.1.3	*Yes*	*Yes*	*NA*	*As for 2.1.1.*	*Thank you. Please see the CAB comments listed against PI 2.1.1.*
2.2.1	*Yes*	*Yes*	*NA*	*As for 2.1.1.*	*Thank you. Please see the CAB comments listed against PI 2.1.1.*
2.2.2	*Yes*	*Yes*	*NA*	*As for 2.1.1.*	*Thank you. Please see the CAB comments listed against PI 2.1.1.*
2.2.3	*Yes*	*Yes*	*NA*	*As for 2.1.1.*	*Thank you. Please see the CAB comments listed against PI 2.1.1.*
2.3.1	*Yes*	*No*	*NA*	Whilst I agree that the nature of the fishing gear suggests that the level of interaction with ETP species is likely to be low, I feel that there should be a reduction of the score to 90 to reflect the lack of an observer program. The available observer information cited in the report (Labelle 1993) is dated. It states that "Seabirds occasionally hit lures in surface waters, and in the rare instances that these were caught, they	*A similar comment was made by the other peer reviewer, and both comments are accepted. The report has been revised to note that the lack of recent observer coverage prevents the high levels of confidence required to award a Yes for SIs 100a and 100b. The assessment team contends that the AAFA fishery does , though, meet the 100c SI (indirect effects), and so a score of 85 has been awarded This score is consistent with the New Zealand and Fiji fisheries that the AAFA fishery is compared*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				were released while in good condition by observers or crew members". It would be valuable to have more up to date information to confirm low levels of interaction and impact.	*against through the harmonisation review.*
2.3.2	*Yes*	*Yes*	*NA*		*Noted and thank you.*
2.3.3	*Yes*	*Yes*	*NA*		*Noted and thank you.*
2.4.1	*Yes*	*Yes*	*NA*		*Noted and thank you.*
2.4.2	*Yes*	*Yes*	*NA*		*Noted and thank you.*
2.4.3	*Yes*	*Yes*	*NA*		*Noted and thank you.*
2.5.1	*Yes*	*Yes*	*NA*	The low level of catch in the fishery supports this outcome, however. studies of fishery removal impacts at the ecosystem level are lacking.	*Noted and thank you.* *On ecosystem effects, the information provided in Kitchell et al. (1999) suggests that albacore is not a keystone predator or prey species in*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
					the Central Pacific. Nevertheless, the peer reviewer's comment is noted and a comment on the value of information on the ecosystem impact of albacore fishery removals has been made against this PI. The score has not been adjusted.
2.5.2	*Yes*	*Yes*	*NA*		*Noted and thank you.*
2.5.3	*Yes*	*Yes*	*NA*		*Noted and thank you.*
3.1.1	*Yes*	*Yes*	*NA*		*Noted and thank you.*
3.1.2	*Yes*	*Yes*	*NA*	*The information provided supports the conclusions and scoring.*	*Noted and thank you.*
3.1.3	*Yes*	*Yes*	*NA*	*The information provided supports the conclusions and scoring.*	*Noted and thank you.*
3.1.4	*Yes*	*Yes*	*NA*		*Noted and thank you.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
3.2.1	*Yes*	*Yes*	*NA*	*The information provided supports the conclusions and scoring.*	*Noted and thank you.*
3.2.2	*Yes*	*No*	*NA*	*The score should be reduced somewhat. SG80b and SG100b require decision processes to respond in a timely manner. It is clear that the consensus approach for WCPFC can limit timely responses on some issues.*	*A comment was also made on this PI by the other peer reviewer, and in response the score has been adjusted to 90 (from 95) by confirming that the fishery does not meet the level of performance required by SI 100b.* *A note has been added on the timeliness of management processes to SI 80b, though, confirming that the fishery does meet the SG80 level of performance for that SI.*
3.2.3	*Yes*	*Yes*	*NA*	*The information provided supports the conclusions and scoring.*	*Noted and thank you.*
3.2.4	*Yes*	*Yes*	*NA*	*The information provided supports the conclusions and scoring.*	*Noted and thank you.*
3.2.5	*Yes*	*Yes*	*NA*	*The information provided supports the conclusions and scoring.*	*Noted and thank you.*

Any Other Comments

Comments	Conformity Assessment Body Response
Minor editorial comments:	
Page v, CR should refer to MSC Certification Requirements v1.2	Noted and thank you- the change has been made.
Page 6, para 6 – reference to WCPFC 2011b should probably be Hoyle 2011	Noted and thank you- the change has been made.
Page 14, para g – “F-bases” should be “F-based”	Noted and thank you- the change has been made.
Page 23, final para, 2nd sentence “The at ….” Requires editing	Noted and thank you- the change has been made.
Page 34, reference to PFMC 2007 should be 2007a or 2007b	Thank you- the reference should be PFMC 2007b.
Page 35, reference “Childer” should be “Childers”	Noted and thank you- the changes have been made.
Page 58 and 60, reference to WCPFC 2011 should be 2011a,b or c	Thank you- the reference should be WCPFC 2011b in both cases.
Page 95, SG80d refers to North Pacific rather than South Pacific	Noted and thank you- this issue was also identified by the other peer reviewer.

Appendix 10: Peer Review Report #2

Overall Opinion

Has the assessment team arrived at an appropriate conclusion based on the evidence presented in the assessment report?	**Yes/No** **Yes**	**Conformity Assessment Body Response**
Justification: I believe that a few of the scores should be a bit higher and a few should be a bit lower, but I have no general disagreement with the overall scores and conclusion.		The assessment team has made detailed comments against each of the PIs below.

Do you think the condition(s) raised are appropriately written to achieve the SG80 outcome within the specified timeframe?	**Yes/No** **Yes**	**Conformity Assessment Body Response**
Justification: For condition 1, considering the current increased interest in WCPFC and IATTC on establishing reference points, it is quite likely that the commissions will establish the required reference points by the 4th annual audit. This concept is reinforced by a statement in the assessment report: "While target and limit reference points have yet to be formally adopted by the WCPFC, the SC has been actively conducting research for identification of candidate limit reference points for the key target species in the WCPFC, including South Pacific albacore."		The assessment team thanks the peer reviewer for this input- it is noted and welcomed.
For condition 2, as mentioned below under 1.2.2, it is likely (but not certain) that well-defined harvest control rules will be in place `by the 4th year of certification. This contention is based on the growing political will within the largest group of WCPFC members, the countries that are members of the Forum Fisheries Agency. This sentiment is embodied in the report of the 2012 WCPFC SC, which states: "FFA members also reiterated their concern about the doubling of [South Pacific albacore] catch since 2000, declining CPUE, and increase in effort (including influx of vessels from the Indian Ocean, increase in domestic fleet size, and more high seas fishing) for South Pacific albacore, a fishery of special significance to many FFA members. FFA members suggested that a reduction of fishing mortality and catch of South Pacific albacore should be recommended to the Commission."		These comments are also noted and welcomed.

If included:

Do you think the client action plan is sufficient to close the conditions raised?	**Yes/No** **Yes**	**Conformity Assessment Body Response**
Justification: The two client action plans specified in Appendix 2 of the assessment report are likely to close the conditions raised. This contention is based on the increased awareness on the part of the members of the two commissions and the fact that ISSF and WWF and others have become increasingly vocal on the issues in the context of WCPFC and IATTC.		The assessment team thanks the peer reviewer for this input- it is noted and welcomed.

General Comments on the Assessment Report (optional)

The report is very well-written by specialists with a great deal of historical involvement with the fishery. Any disagreements I have with the report are fairly minor.

In the letters of both WWF and ISSF there is mention of conditions in the 2007 assessment that have not been met. It would be useful the assessment report could state the MSC policy or rule on unfulfilled conditions of a previous assessment as they relate to a follow-up assessment.

IMM Response: An explanatory note on the MSC's policy towards carrying over conditions from one certification to the next was provided in Section 4.1 of the report, but this section has now been expanded to show more detail and information directly from the CR V1.2, with text from Section 27.24.2.4 included in the report.

Performance Indicator Review

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
1.1.1	Yes, but see 2 notes on right.	*Yes*	*n/a*	This statement (from the assessment report) seems contradictory: "Estimated annual recruitment…. is relatively stable but variable over the last 25 years…." After the assessment report was released, a more recent assessment of South Pacific albacore was presented at the 2012 WCPFC-SC. The general conclusion was "The 2012 assessment results are generally similar to, but more optimistic than those of the 2009 and 2011 assessments".	*The text in the report has been modified to read: "… shows year to year varation around a relatively stable or slightly declining inter-decadal mean over the last 25 years, with an increase in the most recent 5 year period."* *The assessment team notes that the 2012 WCPFC-SC information is just available, but a line needs to be drawn on collecting and including additional data for the assessment. Moreover, given the 'more optimistic' assessment results, and assuming that the fishery does proceed to recertification, we feel we can add this very recent information in at the first annual audit without jeopardising the validity of the assessment or the MSC standard.*
1.1.2	*Yes*	*Yes*	*Yes*	Considering the current increased interest in WCPFC and IATTC on	*The assessment team is naturally hopeful that the requisite progress to close the*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				establishing reference points, it is quite likely that the Commissions will establish the required reference points by the 4th annual audit.	*conditions on the AAFA fishery can be made. The peer reviewers comments on the RFMOs is therefore clearly encouraging.*
1.1.3	*N/A*	*N/A*	*N/A*	The stock is not considered to be depleted, and so this performance indicator is not scored	*Noted and agreed, thank you.*
1.2.1	*No*	*No*	*N/A*	Although it is recognized that information from the 2012 WCPFC-SC has become available after the release of the assessment report, the more recent information should not be ignored in these comments. SG 80 (issue b) requires that "….. *monitoring is in place and evidence exists that it is achieving its objectives*".. The 2012 WCPFC-SC report states that South Pacific albacore "longline catch rates are declining, and catches	*The declning CPUE for longline fleets was noted at Section 3.3.3, point g. As was also noted, however, the South Pacific albacore stock is not overfished and is not experiencing overfishing. Further, there has been a negligible change in troll/jig effort since the 2004/2005 reference period for effort, the troll/jig fishery targets pre-adult albacore similar to the fish targeted by the New Zealand fishery (scored 80 for this PI), and there has been a negligiible change in total biomass or spawning potential. The assessment team therefore continues to contend that the fishery meets the SG80 level of performance. Nevertheless, a note*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				over the last 10 years have been at historically high levels and are increasing".	*on the declining catch rates in the longline fishery has been added in against scoring issue SI 80b.*
1.2.2	Yes, but new information (from the 2012 WCPFC-SC) has become available after the release of the assessment report.	*Yes*	*Yes*	It is likely that well-defined harvest control rules will be in place by the 4th year of certification. This contention is based on the growing political will within the largest group of WCPFC members, the countries that are members of the Forum Fisheries Agency. This sentiment is embodied in the report of the 2012 WCPFC SC, which states: "FFA members also reiterated their concern about the doubling of [South Pacific albacore] catch since 2000, declining CPUE, and increase in effort (including influx of vessels from the Indian Ocean, increase in domestic fleet size, and more high seas fishing) for South Pacific albacore, a fishery of special significance to many FFA members. FFA members suggested that a	*As with PI 1.1.2, the assessment team is naturally hopeful that the requisite progress to close the conditions on the AAFA fishery can be made. The peer reviewers comments on the RFMOs here is also, therefore, clearly encouraging.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				reduction of fishing mortality and catch of South Pacific albacore should be recommended to the Commission."	
1.2.3	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you. The score has, in fact, been increased from 85 to 90 following a check of the MSC guidance that showed partial scoringwas not permitted, while comments expressed in the other peer review and a thorough review of the scoring by the assessment team showed that SI100b was met.*
1.2.4	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you.*
2.1.1	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate. The situation is much simpler here for South Pacific albacore than for North Pacific albacore because bait is not used in the south.	*Noted and thank you.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
2.1.2	*Yes*	*No*	*N/A*	*I understand that there has been no regular observer coverage during the past two decades. Although it is probable that "the capture of species other than albacore is [still] a rare event", it would seem that the lack of recent verifiable data would prevent a score of 100.* This is a similar situation to PI 2.1.3, where the assessment report states: "there is no observer program on the fishery and the catch of all retained species cannot therefore be verified, so the fishery does not meet this scoring issue". I suggest a score of 95 – the same score that was assigned to PI 2.1.3.	*The requirements for 'verifiable' data are specific to PI 2.1.3, rather than 2.1.2. While data accuracy is nevertheless a fundamental requirement for a high score for this PI, the three years of recent catch data show consistently negligible quantities of other, non-albacore species being retained and provide the assessment team with suficient confidence to award a score of 100 for this PI.*
2.1.3	*Yes*	*Yes*	*n/a*	*The scoring and justification are appropriate* *Although I think that the scoring is*	*The assessment team conceded that there may be reasons or incentives for misreporting, including the convenience of not reporting and concern over future*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				appropriate, I feel that the statement under SG 100 is not strictly accurate: "…as there is no incentive to misreport catches..." In general, there are two types of incentives that could cause misreporting: (a) the convenience of not reporting (i.e. laziness), and (b) concern that in the future catches of non-albacore species could be an issue .	*regulations. The statement has therefore been revised to read: "There is no reason to suspect that catches exceed reported landings as there is no apparent or obvious incentive to misreport catches of those species (i.e., the albacore fleet is not subject to quotas on the HMS species that are retained, although it is accepted that some misreporting might occur where rare catches are not included in reports for convenience)". The score for this PI has not been changed, however.*
2.2.1	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Thank you*
2.2.2	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Thank you*
2.2.3	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Thank you*
2.3.1	*No*	*No*	*N/A*	*For consistency, I feel that information from the MSC Assessment Report for*	*A similar comment was made by the other peer reviewer, and both comments are*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				the New Zealand Albacore Tuna Troll Fishery should be at least considered. That report states: "Although no specific fishery interactions have been observed or reported for the troll fishery in New Zealand fishery waters, anecdotal reports and expert opinion consider that some albatross species may be at risk of capture from this method." Much of the evidence used to support the high scoring comes from the NORTH Pacific albacore fishery ("North Pacific" is cited 7 times in the PI 2.3.1 Evaluation Table). Although it is likely that similar conditions prevail in the south, the lack of supporting information from the south makes it difficult to assign a score of 100.	*accepted. The report has been revised to note that the lack of recent observer coverage prevents the high levels of confidence required to award a Yes for SIs 100a and 100b. The assessment team contends that the AAFA fishery does , though, meet the 100c SI (indirect effects), and so a score of 85 has been awarded This score is consistent with the New Zealand and Fiji fisheries that the AAFA fishery is compared against through the harmonisation review.*
2.3.2	*Yes, but see note to right*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you. The assessment report has been edited to read 'There has been no recent observer coverage of the*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				The evaluation table states several times "There has been no observer coverage of the South Pacific albacore troll fishery". This seems inconsistent with other statements in the assessment report. In several places the report refers to "observer trips undertaken in the 1990 – 1991 and 1991 – 1992 seasons".	*US South Pacific albacore troll fishery, and there is no observer plan currently in place.'*
2.3.3	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you*
2.4.1	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you*
2.4.2	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you*
2.4.3	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you*
2.5.1	*Yes*	*Yes*	*N/A*	*The scoring and justification are appropriate*	*Noted and than k you.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				A point under SG 100 is not clear: "The surface pelagic habitat of the STCZ covers an enormous area and this feature is affected only by climate and physical forcing."	*An additional explanation on physical forcing has been added to say (i.e., weather, water currents, etc.).*
2.5.2	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you*
2.5.3	*Yes, but see note to right*	*Yes*	*N/A*	*The scoring and justification are appropriate* *Under SG 80 (issue e) it appears that an irrelevant statement from the North Pacific albacore assessment was eroneously pasted in: "Monitoring of the northern anchovy, albacore and other HMS stocks and fisheries is ongoing, and results are reported on annually, while the AAFA fishery poses no risk to the physical functioning of the NPTZ or CCS."*	*Noted and thank you.* *Yes, thank you- this text in this SI was incorreclty copied from the North Pacific report; it has been revised to be specific to the South Pacific fishery.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
3.1.1	*No, see comment to right*	*No- SG 80 (issue d) appears to be only partially fulfilled due to the issue raised to the right*	*N/A*	The information given in the assessment report is correct on legal rights created explicitly by the WCPFC convention relating to people dependent on fishing for food and livelihood – but a more complete listing is: • Article 5: In order to conserve and manage highly migratory fish stocks in the Convention Area in their entirety, the members of the Commission shall.... take into account the interests of artisanal and subsistence fishers. • Article 10: In developing criteria for allocation of the total allowable catch or the total level of fishing effort the Commission shall take into account, inter alia….the needs of coastal communities which are dependent mainly on fishing for the stocks. • Article 30: The Commission shall take into account the special	*The CR provides guidance for the term 'observe' which is critical to the scoring of SI 80d (The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood…). The CR states:* *"CB4.2.5 The team should interpret "observe" in scoring issue d at SG80 to mean:* *CB4.2.5.1 There are more formal arrangements such as bylaws or regulation that make explicit the requirement to consider the legal rights created explicitly or by custom of people dependent on fishing for food or livelihood; and* *CB4.2.5.2 Those peoples' long-term interests are taken into account within the legal and/or customary framework for managing fisheries."* *The report on small-scale fisheries as listed below by the peer reviewer provides a*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				requirements of developing States Parties, in particular small island developing States, and of territories and possessions, in particular: ….the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and fishworkers. *In order to "avoid adverse impacts" there is the assumption that some form of system is in place to detect any impacts – which is mostly not the case for impacts on small-scale fishing. This subject is explored in:* Gillett, R. (2011). Issues in Small-Scale Tuna Fisheries in FFA Member Countries. Forum Fisheries Agency, Honiara, 13 pages.	*useful contribution to the discussion with regard to the Article 30 term 'avoid adverse impacts'. However, the overall framework provided for by the various Articles as listed is such that the assessment team considers that the requirements of this PI are met at the 95 level. The one Scoring Issue where the fishery is not considered to meet the SG 100 level of performance is SI 100b, 'The management system incorporates or subject by law to a **transparent** mechanism for the resolution of legal disputes that…' where the team felt that the peer reviewers comments were a valuable contribution.*
3.1.2	*Yes, but see note to right*	*Yes*	*n/a*	To support the contention that "the management system has effective	*Noted and thank you.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				consultation processes that are open to interested and affected parties", at the WCPFC 7th regular session in 2010 the Chairman reaffirmed that in the "Commission's rules of procedure, all meetings are open."	
3.1.3	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you.*
3.1.4	*Yes*	*No*	*N/A*	Under SG 100 (issue a), because the Scientific Committees established by the Conventions have duties which include reviews of management policies to ensure that stocks are being managed using science-based information in a manner that promotes conservation, sustainability and optimal utilization – I feel that SG 100 is partially fulfilled, and therefore a score greater than 80 is deserved.	*The assessment team contends that although reviews are undertaken, they cannot be said to be regualr. As such, the score has been maintained at 80 for this PI.*
3.2.1	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Noted and thank you.*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
3.2.2	*No (see right)*	*Yes*	*N/A*	For SG 80 and SG 100 some statements are made that would have more credibility if examples could be cited for the following: *"Explanations are provided for any actions or lack of action associated with findings and relevant recommendations"* *"Not all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions".*	*On the first bullet point ('Explanations are provided for any actions or lack of action associated with findings and relevant recommendations'), the assessment team contends that this statement is justified through readers being pointed to the management bodies and the meeting reports that they produce. A further clarficiation on the types of information made available through the different reports has been added, however.* *The assessment team has revised the assessment such that the fishery does not meet SI 100b. As such, the assessment team has not attempted to justify the comment 'Not all issues identified in relevant research …. ' in order to show that the fishery is performing at the SG100 level.*
3.2.3	*No*	*No*	*N/A*	*SG 80 (issue d) is an irrelevant statement simply pasted in from the assessment report for NORTH Pacific*	Noted and thank you- the report has now been revised to specify the South Pacific fishery.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				albacore. For SG 100 (issue a) it is stated that "monitoring is not comprehensive at the international level". I feel that the vessel monitoring system established under WCPFC Conservation and Management Measure 2007-02 qualifies as being "comprehensive at the international level" Management Measure 2007-02 states that: 2. The system shall commence, to be activated 1 January 2008, in the area of the Convention Area south of 20°N, and east of 175°E in the area of the Convention Area north of 20°N. 3. With respect to the area north of 20°N and west of 175°E, the system	The peer reviewer's comments are noted. However, it is the assessment team's contention that enforcement capabilities at the international level are limited and the area of responsibility in the South Pacific is huge. As such, it is not considered that monitoring, control and surveillance can be said to be comprehensive.

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
				will be activated at a date to be determined by the Commission. *4. Any fishing vessels fishing for highly migratory fish stocks on the high seas within the areas of the Convention Area described in para 2 above that move into the area north of 20°N and west of 175°E shall keep their ALCs activated and continue to report to the Commission in accordance with this Conservation and Management Measure.*	
3.2.4	*No*	*No*	*N/A*	*Under SG 100 (issue a) there is the statement: "the research plan is not fully comprehensive", but the other information provided under Issue A gives the impresssion of the planning being fairly comprehensive, At least some information about the non-comprehensive nature of the research plan should be provided.*	*The report has been revidsed to show that the fishery meets the SG100 level of performance for this PI. This change is based on the peer reviewers comments and a reassessment of the comprehensiveness of the research plan and research undertaken, which does include topics such as reference points and control rules, with specific recommendations coming back to the*

Performance Indicator	Has all the relevant information available been used to score this Indicator? (Yes/No)	Does the information and/or rationale used to score this Indicator support the given score? (Yes/No)	Will the condition(s) raised improve the fishery's performance to the SG80 level? (Yes/No/NA)	Justification Please support your answers by referring to specific scoring issues and any relevant documentation where possible. Please attach additional pages if necessary.	Conformity Assessment Body Response
					WCPFC as a result.
3.2.5	*Yes*	*Yes*	*N/A*	The scoring and justification are appropriate	*Thank you. It may be noted, though, that the scoring has been adjusted from 85 to 80 as a partial award for meeting some elements of the Scoring Issues was removed following a check of MSC guidance.*

Any Other Comments

Comments	Conformity Assessment Body Response
In several places the assessment report misused some WCPFC abbreviations: • CCM = Commission members, cooperating non-members and participating territories • CMM = Conservation and management measure	Thank you- the abbreviations have been checked and revised as appropriate.
In two places of the assessment report some inappropriate comments from the NORTH Pacific albacore report were pasted in: 2.5.3 and 3.2.3	Thank you- these two references to the North Pacific fishery have been corrected in the relevant sections.

Appendix 11: Stakeholder submissions

The report shall include:

a. All written submissions made by stakeholders during consultation opportunities listed in CR 27.15.3.1
b. All written and a detailed summary of verbal submissions received during site visits regarding issues of concern material to the outcome of the assessment *(Reference CR 27.15.3.2)*
c. Explicit responses from the team to stakeholder submissions included in line with above requirements *(Reference CR 27.15.3.3)*

(REQUIRED FOR FR AND PCR)

The report shall include all written submissions made by stakeholders about the public comment draft report in full, together with the explicit responses of the team to points raised in comments on the public comment draft report that identify:

a. Specifically what (if any) changes to scoring, rationales, or conditions have been made.
b. A substantiated justification for not making changes where stakeholders suggest changes but the team makes no change.

(Reference: CR 27.15.4)

Appendix 12: Surveillance Frequency

(REQUIRED FOR THE PCR ONLY)

The report shall include a completed fishery surveillance plan table using the results from assessments described in CR 27.22.1

Table A4: Fishery Surveillance Plan

Score from CR Table C3	Surveillance Category	Year 1	Year 2	Year 3	Year 4
[e.g. 2 or more]	[e.g Normal Surveillance]	[e.g. On-site surveillance audit]	[e.g. On-site surveillance audit]	[e.g. On-site surveillance audit]	[e.g. On-site surveillance audit & recertification site visit]

Appendix 13: Client Agreement

(REQUIRED FOR PCR)

The report shall include confirmation from the CAB that the Client has accepted the PCR. This may be a statement from the CAB, or a signature or statement from the client.

(Reference: CR: 27.19.2)

Appendix 14: Objections Process

(REQUIRED FOR THE PCR IN ASSESSMENTS WHERE AN OBJECTION WAS RAISED AND ACCEPTED BY AN INDEPENDENT ADJUDICATOR)

The report shall include all written decisions arising from an objection. *(Reference: CR 27.19.1)*

(Reference: CR 27.19.1)