Agenda Item G.1
Situation Summary
April 2010

NATIONAL MARINE FISHERIES SERVICE REPORT

The National Marine Fisheries Service (NMFS) report typically consists of a regulatory report from the Southwest Region and a report on relevant scientific matters from the Southwest Fisheries Science Center (SWFSC). At this meeting, this agenda will include a report of the most recent annual meeting of the Western Central Pacific Fisheries Commission (WCPFC) and a presentation of a recently completed Memorandum of Understanding (MOU) involving the Pacific Council, as there is no separate agenda item dealing with International Regional Fisheries Management Organizations matters. Further, there will be no report from the SWFSC at this Council meeting.

Ms. Marija Vojkovitch, the Pacific Council representative to the WCPFC, will discuss matters associated with WCPFC7, the most recent annual meeting, in the context of relevant international activities in general (Agenda Item G.1.a, Attachment 1). Dr. Donald McIsaac will discuss the recently signed MOU regarding Regional Fishery Management Council Participation in International Regional Fishery Management Organizations Governing Pacific Highly Migratory Species Management (Agenda Item G.1.b, Attachment 1). Mr. Mark Helvey will provide the National Marine Fisheries Service perspective on regulatory implications of recent Western and Central Pacific Fisheries Commission decisions and other HMS matters (G.1.c, Attachments 1 and 2).

Council Task:

Discussion.

Reference Materials:

1. Agenda Item G.1.a, Attachment 1: Report on International HMS Activities of Interest to the Pacific Council.
2. Agenda Item G.1.b, Attachment 1: Memorandum of Understanding Regarding Council Participation in International Regional Fishery Management Organizations Governing Pacific Highly Migratory Species Management.
3. Agenda Item G.1.c, Attachment 1: Letter from Bill Robinson to Council Chairs.
4. Agenda Item G.1.c, Attachment 2: National Marine Fisheries Service Highly Migratory Species Report.

Agenda Order:

a. WCPFC Report **Marija Vojkovitch**
b. Pacific HMS MOU **Don McIsaac**
c. Southwest Region Activity Report **Mark Helvey**
d. Reports and Comments of Advisory Bodies and Management Entities
e. Public Comment
f. Council Discussion

PFMC
03/23/10

REPORT ON INTERNATIONAL HMS ACTIVITIES OF INTEREST TO THE PACIFIC COUNCIL

Introduction

This report provides an overview of participation by the Pacific Fishery Management Council in the U.S. delegation to the Seventh Regular Session of the Western and Central Pacific Fisheries Commission (WCPFC) in December 2009, meeting results, and international HMS activities of interest to the Council in 2010.

Council Participation at WCPFC6

Council member Marija Vojkovich, Executive Director Don McIsaac, and Staff Officer Kit Dahl attended the December 6-11, 2009, Seventh Regular Session of the WCPFC in Papeete, French Polynesia. Ms. Vojkovich is currently serving as an alternate U.S. Commissioner to the WCPFC, pending appointment as a regular Commissioner. They were part of a U.S. delegation representing NOAA Fisheries, Department of State, U.S. Coast Guard, Western Pacific Fishery Management Council, the fishing industry, and environmental advocacy organizations. Outcomes of the meeting are summarized below, emphasizing issues of particular interest to the Pacific Council.

Revisions to Conservation and Management Measure (CMM) 2008-01, Conservation of Bigeye and Yellowfin Tuna

CMM 2008-01, a 3-year measure adopted in December 2008, seeks to reduce fishing mortality on bigeye tuna by 30 percent from the 2001-2004 average level and limit yellowfin tuna fishing mortality to its 2001-2004 level, in order to maintain stocks at levels capable of producing the maximum sustainable yield (MSY). A presentation at the meeting (previously presented to the Science Committee at their August 2009 meeting) indicates that it is highly unlikely that this objective will be achieved (WCPFC6-2009/IP17).[1] Potential amendments to the conservation measure, activities relating to national level implementation, and related conservation measures were discussed at length. Much attention was focused on proposals to close additional fully enclosed high seas areas ("high seas pockets") to purse seine fishing. Papua New Guinea tabled a more ambitious conservation measure that would have closed all high seas areas east of 170° E longitude and between 10^0 N and 20^0 S latitude to purse seine fishing beginning in 2010. **It was not adopted**.

Proposed Revision of CMM 2005-03 (North Pacific Albacore)

This revision was adopted as a recommendation by the Northern Committee (see WCPFC6-2009/DP-06). It would have changed the current language about not increasing fishing effort on the stock "beyond current levels" to not increase "beyond the 2002-2004 average level." It also clarified and expanded various reporting requirements. The proposed base period for "current effort" is at odds with what the Council had proposed for "current effort," based on advice from the Highly Migratory Species Management Team (HMSMT), which was a 10-year period, 1996-2005. The Federated States of Micronesia (FSM) asked that the conservation measure be modified so that it only apply north of 20^0 N latitude, the area of competence for the Northern Committee (NC). Because of the decision process, any

[1] Referenced papers are available from the WCPFC website at http://www.wcpfc.int/meetings/2009/6th-regular-session-commission

change to the measure requires consensus by NC members. Several meetings of NC members were held on the margins to see if an agreement could be reached on this issue but this was not achieved. As a result **the measure was not adopted**. The head of the Japanese delegation, in his capacity as Chair of the NC, invited FSM to attend the next Northern Committee meeting, where the measure will be reconsidered.

Regulation of Transshipment (CMM 2009-06)

In November 2009 the Pacific Council recommended that the U.S. delegation seek changes in the Marshall Islands Draft Conservation and Management Measure on Regulation of Transshipment so that observers are only required on the carrier vessel and not on the fishing vessel for albacore troll vessels. **This measure was adopted** after negotiation and modification during the meeting. The main sticking point was in relation to vessels catching fish in the Convention Area but transshipping elsewhere. This situation mainly pertains to vessels that would transit into the Inter-American Tropical Tuna Commission (IATTC) Convention Area to continue fishing there. Since an agreement has not been reached on the cross-endorsement of observers from the two Commissions there was a concern that provisions requiring WCPFC observers outside the Convention Area could cause logistical problems. With respect to the U.S. troll fishery, Paragraph 13(b) states that for transshipments "involving only troll caught or pole and line caught fish, 100% observer coverage [is required] starting 1 January 2013, with the observer(s) deployed on the receiving vessel." This language is consistent with the Council's recommendation, which was "seek changes in the Marshall Islands Draft Conservation and Management Measure on Regulation of Transshipment so that observers are only required on the carrier vessel and not on the fishing vessel."

North Pacific Bluefin Tuna (CMM 2009-07)

In November 2009 the Pacific Council recommended that the U.S. delegation support the adoption of complementary measures between the WCPFC and the IATTC to address fishing effort on bluefin tuna. The NC recommended a conservation measure (see WCPFC6-2009/DP-07), **which was adopted**.[2] (The proposed conservation measure was included in Council briefing materials for the November 2009 meeting.) On January 15, 2010 Masanori Miyahara, Chair of the NC, circulated a letter to the IATTC Executive Director proposing a joint working group between the NC and IATTC, immediately after the September 8-11, 2010, NC meeting to discuss North Pacific bluefin tuna conservation and management measures. The letter emphasizes the importance of Mexico's participation in a successful outcome, because Mexico accounts for the bulk of bluefin tuna landings in the Eastern Pacific.

Discretionary Fund to Support ISC Work

In November 2009 the Pacific Council recommended that the U.S. delegation seek WCPFC support for the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific (ISC) Albacore Working Group proposal for a Biological Sampling Plan for North Pacific albacore to refine the vital rates for North Pacific albacore, improve the quality of stock assessments, and proceed to secure necessary funding. The WCPFC agreed to establish a fund under the Secretariat capable of accepting contributions outside of regular assessments to support work related to NC objectives. Since the ISC is the science adviser for the Northern Committee the establishment of this fund presents an opportunity for the U.S. to support the aforementioned project.

[2] Adopted conservation and management measures are available on the WCPFC website at http://www.wcpfc.int/conservation-and-management-measures

Other Adopted Conservation and Management Measures

The following conservation and management measures were also adopted:

- CMM 2009-01, revising CMM 2004-01, Record of Fishing Vessels and Authorization to Fish: the record will now include carrier and bunker vessels.
- CMM 2009-02, Application of High Seas FAD Closures and Catch Retention: Harmonizes the definitions for sets on fish aggregating devices (FADS) and catch retention between those which apply within EEZs and on the high seas.
- CMM 2009-03, amending CMM 2008-05; Conservation and Management of Swordfish: Amendments primarily apply to swordfish fisheries in the South Pacific.
- CMM 2009-04, amending to CMM 2008-06; Conservation and Management of Sharks: Inclusion of Silky Sharks: Adds silky sharks to footnote 2, list of key shark species.
- CMM 2009-05, Damage to Data Buoys by Fishing Vessels: U.S. proposal that prohibits fishing within 1 mile of "floating devices, either drifting or anchored, that are deployed by governmental or recognized scientific organizations or entities for the purpose of electronically collecting and measuring environmental data, and not for the purpose of fishing activities."
- CMM 2009-08, Charter Notification Scheme: Sets out reporting and other requirements for vessels chartered by members.
- CMM 2009-09, Vessels without Nationality: Encourages CCMs to take all necessary measures, including enacting domestic legislation if appropriate, to prevent vessels without nationality from undermining conservation and management measures adopted by the Commission.
- CMM 2009-10, Monitor Landings of Purse Seine Vessels at Ports so as to Ensure Reliable Catch Data by Species: This measure was put forward by Japan in support of the "High Seas Alternative to Paragraph 13" in CMM 2008-01. CMM 2009-10 promotes arrangements for data collection by non-CCMs (i.e., countries that are not members of the Commission). Specifically, Japan lands purse seine caught fish in Thailand and wants to promote port monitoring there consistent with the "High Seas Alternative."
- CMM 2009-11, Cooperating Nonmembers: Sets out procedures for granting cooperating nonmember (CNM) status.

Other Issues

The Striped Marlin Ad-hoc Management Working Group, formed at the meeting pursuant to a Northern Committee recommendation, tabled a conservation and management measure for striped marlin north of the equator. The measure proposed a limit on catch to the level during the 2001-2003 period. **The measure was referred to the next Technical and Compliance Committee meeting (TCC6) in October 2010. This is an issue the Council may want to track in 2010, because striped marlin is a management unit species in the HMS FMP.**

There was much discussion and debate surrounding applications for Cooperating Nonmember (CNM) status. CNMs are bound by the rules of the Commission but their activities in the Convention Area have greater legitimacy within the international framework. From the U.S. perspective the most contentious application was from Ecuador. Vessels from this country have entered into agreements to fish in the waters of the Republic of Kiribati, but the U.S. documented an Ecuadorian vessel illegally fishing in the U.S. Pacific Remote Island Area Exclusive Economic Zone (EEZ). In U.S. eyes the Government of Ecuador has not been forthcoming with information necessary to pursue a case against the vessel as well as other violations. This situation shaped the U.S. position with respect to granting Ecuador CNM status.

In the end Ecuador, along with Belize, El Salvador, Mexico, Senegal, and Vietnam were granted CNM status.

Another significant issue was clarification about how and when the Secretariat was to add selected vessels to the WCPFC IUU list (vessels presumed to have carried out illegal, unreported and unregulated fishing activities in the Convention Area). The list, processes for adding vessels to the list, and member obligations with respect to listed vessels are described in CMM 2007-03. On January 11, 2010, NMFS published a proposed rule to implement obligations to restrict entry into any port or place of the United States and access to port services by vessels on the IUU vessel lists of Regional Fishery Management Organization (RFMOs) and prohibit the provision by persons and business entities subject to U.S. jurisdiction of certain services to, and commercial transactions with, such vessels.

Council Participation in International HMS Management during the Coming Year

2010 RFMO Meetings

The WCPFC holds four major meetings in the second half of each year, culminating in the annual meeting of the Commission each December. Meeting dates and briefing materials for meetings, as they become available, are posted on the WCPFC website at http://www.wcpfc.int/ (select the Meetings link). In 2010 the particulars of these meetings are:

- Scientific Committee, August 9-20, Nukualofa, Tonga (SC6): This meeting is akin to a cross between the Council's SSC and a management team meeting in that it is a forum for vetting scientific products (e.g., stock assessments) but has considerable involvement by more policy oriented representatives. The principal science body for the WCPFC is the South Pacific Commission, Oceanic Fisheries Program.

- Northern Committee, September 7 – 10, Fukuoka, Japan (NC6): This committee deals with stocks found principally north of 20° N latitude, currently identified as albacore tuna, bluefin tuna, and swordfish (and bycatch species). **For that reason, the activities of this committee are of particular interest to the Pacific Council**. Although not formally designated a Northern Committee species, the committee also takes an interest in striped marlin. In 2010 a 1-day workshop is proposed on biological reference points, immediately preceding NC6 (September 6), and the joint working group on Pacific bluefin tuna with the IATTC immediately following (on September 10 at the conclusion of the NC meeting), as mentioned above. As noted above, the ISC is the principal scientific advisor to the Northern Committee. The ISC will hold their annual meeting (ISC10) July 20-26, in Victoria, British Columbia, Canada. (The recently redesigned ISC website is at http://isc.ac.affrc.go.jp/.)

- Technical and Compliance Committee, October 1-6, Pohnpei, Federated States of Micronesia (TCC6): Although the principal charge of this committee has been to help set up the monitoring and control systems for the Commission, such as the regional observer program and Vessel Monitoring System, TCC meetings also function as preparatory forums for the following Commission meeting. Frequently at these meetings preliminary, but well developed, versions of proposed CMMs are discussed, along with other issues that are then brought to the Commission's plenary meeting in December. **The Pacific Council may want to keep this date in mind when developing and discussing potential recommendations for CMMs to the US representatives.**

- Regular Session, December 6-11, Pohnpei, Federated States of Micronesia (WCPFC7)

The Antigua Convention, the new charter for the IATTC, enters into force 15 months after deposit of the seventh instrument of ratification. Costa Rica was the seventh member to ratify with a depository date of

May 27, 2009; therefore the treaty will come into force on August 27, 2010. Reflecting this change, the IATTC, which typically held its annual meeting in June, moved the dates of their annual meeting to September 23-30 in 2010, to be held in Antigua, Guatemala. The Antigua Convention creates a Scientific Advisory Committee, which is scheduled to hold its first meeting August 31-September 2, in La Jolla, California. The Scientific Advisory Committee will replace the function of the Stock Assessment Review Meeting that has been held in May of each year. **The Pacific Council may wish to explore ways in which members of its committees (such as the SSC, HMSMT, and HMSAS) could participate in this meeting.**

In 2009 the IATTC adopted Resolution C-09-01 and Recommendation C-09-02 on a Multiannual Program for the Conservation of Tuna in the Eastern Pacific Ocean in 2009-2011. In the Eastern Pacific, the IATTC adopted a 3-year Resolution (C-09-01) for tuna conservation covering 2009-2011. The measures are similar to the last measure of this type, applicable in 2007: closure of the purse seine fishery for 59, 62, and 73 days in each year respectively; a 1-month closure of a rectangular area west of the Galapagos Islands each year; and national bigeye tuna TACs for longline fleets specified for China, Japan, Korea, and Chinese Taipei (Taiwan) and a 500 mt limit for all other national longline fleets. The measure is to be evaluated in 2011. **The Council may wish to monitor progress towards achieving management objectives and make recommendations on modifications to the measure for consideration at the 2010 IATTC meeting.**

Council Process and International HMS Management

In relation to the WCPFC, attention to and involvement in the series of meetings leading up the December plenary session is important, because issues that eventually emerge for discussion in December are usually first considered in the preceding meetings. The Northern Committee is the most important of these, given that the stocks under their purview are of greatest relevance to west coast fisheries. This is especially true this year given the two ancillary meetings mentioned above, covering biological reference points and bluefin tuna management. Unfortunately, the timing of Council meetings does not mesh well, because the Northern Committee meets the week before the September Council meeting. In 2009 the Council developed recommendations to the delegation at the June meeting. This is far from ideal, because crucial information supporting Northern Committee decision-making, principally ISC recommendations, is unavailable at that time.

Recommendations:

1) With respect to the Northern Committee meeting, the Council may wish to develop preliminary recommendations in June and authorize an ad-hoc committee composed of Council members to meet with the HMS advisory bodies (or selected representatives) in August to further refine recommendations for the delegation at a time when more information becomes available.

2) With the IATTC annual meeting being held in late September and the WCPFC annual meeting held in December, the Council can more efficiently consider international HMS management issues at the September and November meetings.

International HMS management issues of interest to the Council in 2010 include:

- Bigeye and yellowfin tuna conservation and management: As noted, CMM 2008-01 is a 3-year conservation measure, 2009-2011. On the other hand, the WCPFC science advisors have concluded that it is unlikely to achieve its objective of a 30 percent reduction in bigeye tuna fishing mortality. This may spur efforts at WCPFC7 to adopt additional conservation measures related to this objective. The IATTC also has conservation and management measures in place, to be reevaluated in 2010. **The Council may wish to continue tracking progress toward**

meeting the WCPFC CMM's objective and prepare recommendations for any replacement measure, which would be adopted in December 2011. Likewise, as mentioned above, the Council may wish to monitor the IATTC resolution.

- Biological reference points, especially for albacore tuna: As noted, the Northern Committee will sponsor a workshop on reference points. Although a new stock assessment for albacore will not be completed by the ISC until 2011, workshop results could presage future action to more explicitly manage fisheries in relation to target or limit reference points. The Northern Committee has adopted an interim reference point for North Pacific albacore, $F_{SSB\text{-}ATHL}$=0.75, although there is disagreement as to whether this is a target or limit reference point. **The Council may wish to develop recommendations on the appropriateness of the interim reference point and proposed alternatives.**
- Albacore tuna conservation and management: The U.S. proposal to revise CMM 2005-03 was not adopted at WCPFC6 and has been referred to NC6. **The Council may wish to develop recommendations for further modifications of this CMM, especially with respect to the base period used to measure "current effort."**
- Bluefin tuna conservation and management: WCPFC6 adopted a bluefin tuna conservation measure and a 1-day workshop following NC6 has been proposed to coordinate management with the IATTC. **The Council may wish to monitor the outcome of that workshop, and make recommendations on any replacement measure that may be proposed at NC6 and adopted at WCPFC7.**
- Striped marlin conservation management: An ad-hoc working group tabled a conservation and management measure for striped marlin at WCPFC6, which as not adopted and referred to TCC6. **The Council may wish to make recommendations on the content of this measure.**
- WCPFC discretionary fund for Northern Committee research priorities: The Council may wish to pursue U.S. support for ISC-related research activities (funds and/or in-kind support) consistent with recommendation made in November 2009. **The Council may wish to renew encouragement for the U.S. to support gathering North Pacific albacore biological data through this vehicle and in-kind support.**

Council recommendations are communicated to U.S. delegations. Such recommendations can also be emphasized by Council staff and Commissioner Vojkovich when participating in delegations and delegation meetings.

U.S. WCPFC Advisory Committee

Domestic legislation established a Permanent Advisory Committee to the U.S. National Section to the WCPFC, similar in function to the General Advisory Committee for the IATTC delegation. In 2008 the committee was established and appointments made; however, conflict of interest rules have prevented the committee from proffering advice. A legislative fix is currently working its way through Congress. Members of the HMSAS, in their private capacity, have been appointed to the committee. In addition, the Council-Department of Commerce-Department of State MOU on Council participation in delegations has been signed; it specifies an ex-officio position on the WCPFC advisory committee for Council staff.

PFMC
3/23/10

Memorandum of Understanding
Regarding
Regional Fishery Management Council Participation
in
International Regional Fishery Management Organizations Governing Pacific Ocean Highly Migratory Species

I. Parties

A. The parties to this Memorandum of Understanding (MOU) are the U.S. Department of Commerce (DOC), the U.S. Department of State (DOS), the Western Pacific Fishery Management Council (Western Pacific Council), the Pacific Fishery Management Council (Pacific Council) and the North Pacific Fishery Management Council (North Pacific Council).

II. Purpose

A. Pursuant to authority established in the Western and Central Pacific Fisheries Convention Implementation Act, Public Law 109-479 Section 503(f), codified at 16 U.S.C. § 6902 et seq., the purpose of this MOU is to clarify the roles of the Western Pacific, Pacific, and North Pacific Councils (collectively, the Councils) with regard to international efforts by the United States to manage highly migratory species (HMS) in the Pacific Ocean, including:

1. participation in U.S. delegations to international fishery organizations in the Pacific Ocean, including government-to-government consultations;
2. providing formal recommendations to the DOC and DOS regarding necessary measures for both domestic and foreign vessels fishing for HMS species;
3. coordinating positions within the U.S. delegation for presentation to the appropriate international fishery organization; and
4. recommending those domestic fishing regulations that are consistent with the actions of the international fishery organization, for approval and implementation under the Magnuson-Stevens Fishery Conservation and Management Act.

III. Participation in U.S. Delegations to International Fishery Organizations in the Pacific Ocean, including Government-to-Government Consultations

A. Participation on U.S. delegations to the Inter-American Tropical Tuna Commission (IATTC) and Western and Central Pacific Fisheries Commission (WCPFC).

1. The Councils are to be afforded the opportunity to participate directly on U.S. delegations to meetings of the IATTC and WCPFC and their subsidiary bodies. Such participation is to include at least one individual designated by each Council, but may include additional Council representatives consistent with limits on the size of the U.S. delegation and the need to ensure balanced representation of all relevant stakeholders as determined by the Head of Delegation in consultation with the DOS.

2. The DOC and DOS will make their best efforts to avoid scheduling conflicts between meetings of the WCPFC and IATTC and their subsidiary bodies and meetings of the Fishery Management Councils, with the understanding among all parties to this MOU that such scheduling is often outside the control of the U.S. delegation.

B. Representatives of the Councils are to be afforded the opportunity to participate on U.S. delegations to bi-lateral or multi-lateral Government-to-Government consultations that are primarily on WCPFC and IATTC issues. In cases where a Council member is also a Commissioner or Alternate Commissioner, that Commissioner or Alternate Commissioner shall represent the Council in the Government-to-Government consultation. In cases where there is no Commissioner from the Council in question, the Council may designate a representative.

C. As a general rule, and to the extent practicable, the Councils are to be afforded the opportunity to participate on U.S. delegations to, and bi-lateral or multilateral Government to Government consultations at, other announced meetings of international fisheries organizations, in addition to the IATTC and WCPFC, dealing with fishery management issues for Pacific HMS stocks associated with a respective Council.

D. Should circumstances warrant, the Head of Delegation, in consultation with the DOS, may restrict participation in Government-to-Government consultations to Government personnel and appointed Commissioners or Alternate Commissioners.

E. With respect to Head of Delegation and other meetings that occur occasionally during the course of an international meeting where the number of individuals who may participate is restricted, the DOC and DOS, to the extent practicable, will afford the opportunity for a Council representative to attend.

IV. Providing Formal Recommendations to the DOC and DOS regarding Necessary Measures for both Domestic and Foreign Vessel Fishing for Pacific HMS Species

A. The IATTC forum:

1. The Councils may, at any time, provide formal recommendations to the DOC and DOS Secretaries, or their representatives, regarding necessary measures for the conservation and management of the HMS stocks under the purview of the IATTC.

2. Formal recommendations, if possible, will be submitted to the DOC and DOS Secretaries at least two weeks prior to any noticed meeting of the IATTC, but may be submitted at any time prior to or following the conclusion of such meeting, including any direct follow up activities.

3. Formal recommendations, if completed prior to any meetings of the General Advisory Committee (GAC) of the IATTC, will be submitted by the Councils to the GAC of the IATTC for evaluation and recommendation to the U.S. delegation.

B. The WCPFC forum:

1. The Councils may, at any time, provide formal recommendations to the DOC and DOS Secretaries, or their representatives, regarding necessary measures for the conservation and management of the HMS stocks under the purview of the WCPFC.

2. Formal recommendations, if completed prior to any meetings of the WCPFC Advisory Committee, established pursuant to the WCPFC Implementation Act, will be submitted by the Councils to the Advisory Committee for their evaluation and recommendation to the U.S. delegation.

3. The Councils will submit recommendations pursuant to Magnuson-Stevens Act section 304(i) to the DOC and DOS Secretaries, or their representatives, in accordance with the process established in that section.

V. Coordinating Positions within the U.S. Delegation for Presentation to the Appropriate International Fishery Organization

A. Coordination of potential U.S. postions at the advisory body level:

1. The Pacific and the Western Pacific Councils shall be provided one seat each on the IATTC GAC.

2. The Pacific and Western Pacific Councils shall be afforded one seat each on the Advisory Committee for the WCPFC as ex-officio Committee members and shall have the same status and rights of participation as appointed members. These Council ex-officio members shall be the Executive Directors of the Pacific and Western Pacific Council or his/her designee.

3. To provide, to the maximum extent possible, an equitable balance among individuals from the various groups concerned with the fisheries covered by the WCPFC Convention, the Secretary of Commerce, in consultation with the United States Commissioners, will appoint not less than 15 nor more than 20 individuals to the WCPFC Advisory Committee from the various groups in each of the Pacific and Western Pacific Council areas, including among others, the albacore troll, longline and purse seine fisheries, commercial fish processors, recreational fisheries, and conservation and consumer groups.

4. Formally established advisory bodies to aid U.S. delegations to International Fishery Organizations shall be convened in a timely manner relative to providing recommendations to a meeting of U.S. Commissioners in advance of formal meetings of the International Fishery Organizations.

B. Coordination of U.S. positions in advance of formal meetings:
   1. Prior to meetings of the WCPFC and IATTC and their subsidiary bodies, or other international fishery organizations that deal with Pacific HMS stocks, the DOC and DOS shall meet with Council-designated representatives in a timely manner so as to provide the opportunity for discussion of relevant recommendations and the development of U.S. positions in advance of the meetings.

C. Coordination of final U.S. positions:
   1. At meetings of the WCPFC or its subsidiary bodies, including the Northern Committee, U.S. Commissioners shall strive for consensus in developing final U.S. positions for presentation or motion making.

VI. Recommending Domestic Fishing Regulations that are Consistent with the Actions of the International Fishery Organization, for Approval and Implementation under the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.)

Representatives of the Councils, DOC and DOS will, as soon as practicable after each WCPFC or IATTC plenary meeting, review the outcomes of the meetings and, in the event that the United States subsequently approves the decisions resulting from such meetings, identify regulatory actions that might be needed to ensure domestic fishing regulations are consistent with such approved decisions of the two organizations and appropriate legal authority(ies). To the extent permitted by Section 505(a) of the WCPFC Implementation Act, the Councils may recommend to the Secretary of Commerce those domestic fishing regulations that are consistent with the actions of the international fisheries organization for promulgation under that Section, the Magnuson-Stevens Fishery Conservation and Management Act (MSA), or other authorities as appropriate. In cases where domestic regulations will not be developed through the MSA process, Councils are to be afforded the opportunity to review and comment on all draft regulations (and supporting documentation), prior to public disclosure, that are being developed under the WCPFC Implementation Act, 16 U.S.C § 6901 et seq.

VII. Miscellaneous Matters

A. If any new international fishery organizations are formed that have a substantial interest in HMS in the Pacific, the Councils, DOS and DOC will review this MOU and modify, as appropriate.

B. Following U.S. ratification of the Antigua Convention, the elements of this MOU that refer to the IATTC shall apply, *mutatis mutandis*, to the Antigua Convention, unless

enacted implementing legislation significantly alters existing U.S. responsibilities, protocols, or procedures, in which case the provisions of Section VII.A shall apply.

C. This MOU shall be reviewed for efficacy of the mechanisms and established protocols on a regular basis.

VIII. Agreement

The terms of this MOU are agreed to by the parties and made effective by authorized signature and date below, and shall remain in effect until notice of termination by any party with six months notice.

Department of Commerce:

Signature	Title	Date
	Acting Assistant Administrator for Fisheries	2-2-10

Department of State:

Signature	Title	Date
David Balton	DEPUTY ASST. SECRETARY FOR OCEANS & FISHERIES	2/12/10

Western Pacific Fishery Management Council:

Signature	Title	Date
Kitty M. Simonds	Executive Director	10/15/2009

Pacific Fishery Management Council:

Signature	Title	Date
	Executive Director	10/28/2009

North Pacific Fishery Management Council:

Signature	Title	Date
Chris Oliver	Executive Director	10/29/09

U.S. DEPARTMENT OF COMMERCE
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MAR - 5 2010

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Eric Olson, Chairperson
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David Ortman, Chairperson
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Dear Chairpersons Haleck, Olson, and Ortman:

I am writing about the decisions made by the Western and Central Pacific Fisheries Commission (Commission) at its Sixth Regular Annual Session, in Tahiti, in December 2009. The Western and Central Pacific Fisheries Convention Implementation Act (Act) authorizes the Secretary of Commerce, in consultation with the Secretary of State and the Department of Homeland Security, to promulgate such regulations as may be necessary to implement the decisions of the Commission.

Further, consistent with Section VI of the recently signed memorandum of understanding between the Department of Commerce, the Department of State, and the three Regional Fishery Management Councils, I am identifying potential regulatory actions and providing the opportunity to comment early in this process.

By way of this letter, I would like to share NOAA Fisheries Service's initial assessment of the regulatory actions that will be needed to implement the recent decisions of the Commission, including identification of those decisions for which Council consideration and recommendations would be appropriate.

The Commission adopted several conservation and management measures (CMMs) and revised a number of existing measures. Each of these decisions is summarized below, along with an initial assessment of whether regulatory action is needed.

CMM 2009-01 – WCPFC Record of Fishing Vessels and Authorization to Fish

This measure replaces CMM 2004-01. The changes relate primarily to the operation in the Convention Area of carrier and bunker vessels that are not flagged to members or cooperating non-members of the Commission. Regulatory action appears to be needed to ensure that U.S. vessels conduct transshipment and bunkering in the Convention Area only with authorized vessels (see paragraph 2 in the CMM). NOAA Fisheries Service will proceed with developing such regulations under authority of the Act.

CMM 2009-02 – Conservation and Management Measure on the Application of High Seas FAD Closures and Catch Retention

This new measure adds specificity to the seasonal FAD closure and catch retention elements of CMM 2008-01, which is aimed at conserving bigeye tuna and yellowfin tuna stocks. Although not reflected in CMM 2009-02 itself, the Commission decided that any member that had already implemented those elements in a manner compatible with, but not necessarily identical to, the new measure would be given some flexibility in implementing CMM 2009-02 for 2010. The United States is apparently the only member of the Commission to have promulgated regulations implementing the seasonal FAD closure and catch retention elements of CMM 2008-01 (see the final rule at 74 FR 38544). As a result, no further regulatory action is needed to implement CMM 2009-02 for 2010.

CMM 2009-03 – Conservation and Management for Swordfish

This measure replaces CMM 2008-05. The main changes are a new provision for cases in which annual catch limits are exceeded, and adjustments to the specification of Commission members' baseline catches. None of the changes raise the need for regulatory action. However, the United States will periodically review the need for regulatory action with respect to the most substantive elements of the measure – namely, the measure's limits on swordfish catches and the number of vessels fishing for swordfish in the South Pacific Ocean. NOAA Fisheries Service believes that no regulatory action is needed now, but the issue could certainly be appropriate for Council consideration. For example, the CMM includes provisions related to the responsible development of fisheries in Participating Territories, and we note the potential for development of the swordfish-directed fishery out of American Samoa. In order to ensure consistency with the CMM, any such fishery development would ideally be conducted in accordance with a plan that established appropriate objectives, strategies and constraints.

CMM 2009-04 – Conservation and Management of Sharks

This measure replaces CMM 2008-06. The only change is the addition of silky shark as a "key shark species," which is relevant in terms of reporting and research. It does not require additional regulatory action.

CMM 2009-05 – Conservation and Management Measure Prohibiting Fishing on Data Buoys

This new measure requires that Commission members prohibit their fishing vessels from fishing in the vicinity of data buoys on the high seas in the Convention Area. Regulatory action appears to be needed to accomplish this, and NOAA Fisheries Service intends to develop and implement such regulations under authority of the Act.

CMM 2009-06 – Conservation and Management Measure on the Regulation of Transhipment

This new measure regulates transshipment activities in the Convention Area and includes notice and reporting requirements for vessels involved in transshipment, both at sea and at port. NOAA Fisheries Service intends to develop and implement appropriate regulations to implement this measure under authority of the Act. Because FMP implementing regulations also contain requirements related to transshipping, NOAA Fisheries Service will develop the new regulations under the Act with a view to avoiding duplication with FMP-based requirements. At the same time, the Councils may wish to reconsider the transshipment-related provisions of their respective FMPs and FEPs in light of this new Commission CMM.

CMM 2009-07 – Conservation and Management Measure for Pacific Bluefin Tuna

This new measure requires that Commission members limit fishing effort in the North Pacific Ocean for Pacific bluefin tuna in their fisheries during 2010. Regulatory action is probably not needed because the United States does not have directed bluefin fisheries in the Convention Area, but this issue is certainly appropriate for Council consideration.

CMM 2009-08 – Charter Notification Scheme

This new measure requires that Commission members notify the Commission of any charter arrangements involving vessels flagged to other nations. As such arrangements are currently rare in the United States, it appears that no regulatory action is needed at present to implement this measure.

CMM 2009-09 – Conservation and Management Measure for Vessels without Nationality

This new measure aims to enhance the means for Commission members to take enforcement action against fishing vessels without flag that operate in the Convention Area. The United States is able to fully implement the provisions of this measure under authority of the High Seas Fishing Compliance Act, so no further regulatory action is needed.

In addition to considering these latest decisions of the Commission, the Councils, of course, are welcome to consider previous decisions of the Commission with respect to the fisheries under their respective authority.

Please let me know if you have any questions or concerns regarding implementation of Commission actions taken in 2009. I look forward to working with the Councils to implement the decisions of the Commission in a timely and efficient manner.

Sincerely,

William L. Robinson
Regional Administrator

cc: William Gibbons-Fly, U.S. Department of State
Lt. Cmdr. Jay Caputo, U.S. Coast Guard
Ufagafa Ray Tulafono, American Samoa Department of Marine and Wildlife Resources
Celestino O. Igisomar, CNMI Department of Lands and Resources
Carlotta A. Leon Guerrero, Guam Office of the Lieutenant Governor
Rod McInnis, NMFS Southwest Regional Office
Barry Thom, NMFS Northwest Regional Office
Doug Mecum, NMFS Alaska Regional Office

NATIONAL MARINE FISHERIES SERVICE
HIGHLY MIGRATORY SPECIES REPORT

Upcoming Meetings:

NOAA Fisheries National Recreational Fisheries Summit (April 16-17, 2010). The Summit will be held April 16-17, 2010, in Alexandria, Virginia, and is part of the NOAA Fisheries Recreational Fishing Engagement Initiative. The objective of the Summit will be to bring together the saltwater recreational fishing community and NOAA Fisheries leadership to begin identifying issues of concern and collaborating on possible solutions.

External Review of the IATTC's Bigeye Tuna Stock Assessment (May 3-7 in La Jolla, Ca). The goals of the review are to evaluate the strengths and weaknesses of the IATTC's assessment method and assumptions, and to make recommendations that could improve the current methods. The review will be conducted by an expert panel. More details are available on the following IATTC website: http://www.iattc.org/PDFFiles2/Invitation-BET-review-meeting-May2010ENG.pdf.

RFMO Followup: Four tuna regional fishery management organization (RFMO) workshops developed out of the second joint meeting of the tuna RFMOs (Kobe II) in San Sebastian in 2009. Additional information on these meetings will become available on the following website: http://www.tuna-org.org/meetings2010.htm#.

1) **Meeting of Experts to Share Best Practices on the Provision of Scientific Advice (May 31-June 2 in Barcelona, Spain)**

2) **Improvement, harmonization, and compatibility of monitoring, MCS Measures (June 3-5 in Barcelona, Spain)**

3) **Management Issues Related to Bycatch (June 23-26 - Brisbane, Australia).** The Kobe II Bycatch Workshop is being co-hosted by the United States and the Pacific Island Forum Fisheries Agency (FFA). Workshop objectives are: 1) review available information on incidental catch of non-target species and juveniles of target species; 2) provide advice to tuna RFMOs on best practices, methods and techniques to assess and reduce the incidental mortality of non-target species, such as seabirds, turtles, sharks, marine mammals, and of juveniles of target species; 3) develop and coordinate relevant research programs and observer programs; and 4) make recommendations on mechanisms to streamline the work of tuna RFMO Working Groups in this field in order to avoid duplication.

4) **RFMO Management of Tuna Fisheries, particular emphasis on capacity (June 28-July 1 in Brisbane, Australia)**

Proposed Rules:

The Proposed Listing of Nine Distinct Population Segments of Loggerhead Sea Turtles as Endangered or Threatened. NMFS and USFWS have determined that the loggerhead sea turtle

is composed of nine distinct population segments (DPSs) that qualify as "species" for listing as endangered or threatened under the Endangered Species Act, and have proposed to list two as threatened and seven as endangered. NMFS and USFWS will propose to designate critical habitat, if found to be prudent and determinable, for the two loggerhead sea turtle DPSs occurring within the United States, including waters of the West Coast Exclusive Economic Zone, in a subsequent Federal Register notice. NMFS and USFWS are seeking information and comments on whether the nine proposed loggerhead sea turtle DPSs qualify as DPSs and, if so, whether they should be classified as threatened or endangered as described in the "Listing Determinations Under the ESA". Comments on this proposal must be received by June 14, 2010. Public hearing requests must be received by June 1, 2010. The proposed listing was published in the Federal Register on March 16, 2010, and is available at the following website: http://edocket.access.gpo.gov/2010/pdf/2010-5370.pdf.

HIGHLY MIGRATORY SPECIES ADVISORY SUBPANEL REPORT ON THE NATIONAL MARINE FISHERIES SERVICE REPORT

The Highly Migratory Species Advisory Subpanel (HMSAS) reviewed the recommendations listed at the end of G.1.a, Attachment 1. Recommendation 1) and 2) relate to workload and scheduling for the Council. The HMSAS will have comments under Agenda Item K.3, but basically support the recommendation that the Council consider HMS issues at the June meeting and authorize a HMS ad-hoc committee to further refine Council recommendations.

On biological reference points used for albacore tuna, the HMSAS suggests that at this time the international scientists have not come to a consensus, and it is premature for the Council to take a position on the appropriate reference point for albacore tuna. Also, due to the lack of scientific information and the variability of the albacore tuna biomass the reference point eventually determined should be a "target" and not a "limit reference point."

Concerning albacore tuna conservation and management, the HMSAS is very concerned that the U.S. will move ahead of the international community and create a situation that will disadvantage the U.S. fleet in international negotiations. The G.3 Agenda Item specifically discusses the issue of the basis for "current effort." The HMSAS disagrees with the NC 6 proposal of using 2002 to 2004 as the basis and suggests the Council reiterate their April 2007 decisions to forward to the Regional Fishery Management Organizations (RFMOs) effort characterization methods proposed by the HMSMT and HMSAS. The Council decision document states:

> These methods were proposed by the HMSMT and HMSAS and include the number of vessels that participated in the albacore troll/baitboat fishery and a computation of vessel fishing days for commercial fisheries catching albacore for the time period 1996-2006. Together these methods could be used to report historical effort in fisheries catching North Pacific albacore in order to determine whether fishing effort is declining, stable, or increasing. Based on the information provided the Council concludes that U.S. West Coast effort on North Pacific albacore is not increasing.

Concerning discretionary funds the HMSAS is concerned that funding for science and research on albacore tuna is no longer a priority with NOAA/NMFS. The HMSAS recommends the PFMC request that funding if re-directed at other issues be reestablished and increased. The HMSAS feels that if international and Federal management and control of the fishery becomes a reality the U.S. needs to be able to support its domestic fishery with solid research and science. Without such funding the U.S. will be at a disadvantage in the international arena and will be detrimental to the U.S. fishing industry, processors, ports, and consumers.

The HMSAS also recommends to the Council that it supports the efforts to have the United States make contributions to the voluntary fund recently established by the Western and Central Pacific Fisheries Commission at its annual meeting in December 2009 to fund specific research projects proposed by the International Scientific Committee to the Northern Committee for North

Pacific albacore research. This support could be evidenced by the Council writing to the State Department and the Assistant Administrator of NMFS, as well as Dr. Lubchenco of NOAA, expressing the importance of making a significant contribution to the voluntary fund as soon as possible in view of the pending assessment of North Pacific albacore to be completed in 2011.

The HMSAS reviewed the Bluefin conservation and management and agree with the proposal that the Council monitory the outcome of the NC7 workshop. We further agree with the proposal that the Council may make recommendations based on outcomes from the NC7 meeting. Concerning striped marlin conservation the HMSAS is astounded at the speed with which the WCPFC has moved to a draft Conservation Management Measure (CMM) at its sixth meeting in Tahiti. We are especially concerned that the CMM contains a very limited range of effort control dates for catches of striped marlin.

The HMSAS has not been provided an analysis of the potential impacts of this CMM on the HMS fisheries of the west coast. We would like to stress the importance of North Pacific Striped Marlin to the recreational HMS fisheries in southern California which appear to remain underappreciated by regulatory agencies and delegation to international organizations apparently due to lack of adequate socio-economic, catch, and catch-release mortality data.

The HMSAS would like to urge the Council to continue to support the management of North Pacific Striped Marlin. However, we would like to stress that the west coast fishery is potentially vulnerable to enormous impacts from management measures not carefully considered. The draft CMM recommends effort be restricted to catch rates of 2001, 2002, and 2003. The current SAFE report for these years contains different catch numbers for the private recreational fleet that vary between 0 and 300 fish per year (obtained from an average of a longer range of years). The southern California recreational marlin community knows the catch has never been zero but recognizes the catch does vary greatly.

Several factors combine to pose risks to west coast recreational North Pacific striped marlin fisheries. First, the southern California bight is the northern-most area for the migration of North Pacific striped marlin. Therefore, catch rates can vary greatly over multiple year periods due to oceanographic conditions that can severely limit availability but rarely completely eliminates it. Second, catch/effort data is widely believed to be under-sampled in private marinas that house the larger vessels typically used in this fishery. Third, social-economic data is lacking in this fishery providing the potential for under-appreciation of the impacts that a poorly designed CMM could exact. Fourth, regulatory agencies continue to use worst case scenario assumptions related to the live release of fish. As a result of these risk impacts could be severe to the boating, tackle, and charter fishing industries solely from the lack of up-to-date information and current research.

Therefore, the HMSAS recommends that council urge NMFS and delegations to the international organizations utilize a sensible approach to the management of the North Pacific Striped Marlin that directly addresses the vulnerabilities posed by the limited range of effort control dates currently in the draft CMM and urges that research be expanded on North Pacific striped marlin to support stock assessments., provide accurate up-to-date socio-economic information on the southern California recreational marlin fishery, improve estimates on survivability of striped

marlin caught and released in both recreational and commercial fisheries, and to develop gear modifications to increase survivability of released fish.

The draft Pacific striped marlin conservation measure is attached.

PFMC
04/11/10

SIXTH REGULAR SESSION
Papeete, Tahiti, French Polynesia
7-11 December 2009

DRAFT PROPOSAL FOR A CMM FOR PACIFIC STRIPED MARLIN NORTH OF THE EQUATOR

WCPFC6-2009/24
9 December 2009

Submitted by the Striped Marlin Ad-hoc Management Working Group

Version 4

~~**Next Meeting: Morning tea; Wednesday, Dec. 9.**~~

DRAFT PROPOSAL FOR A ~~DRAFT~~ CMM FOR PACIFIC STRIPED MARLIN NORTH OF THE EQUATOR

Conservation and Management Measure for N~~n~~orth~~ern~~ Pacific Striped Marlin

Observing the best available scientific evidence on North Pacific s~~S~~triped m~~M~~arlin from the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) shows that the species is experiencing fishing mortality above levels that are sustainable in the long term;

Noting that the scientific advice from the ISC is that the fishing mortality rate of striped marlin (which can be converted into effort or catch in management) should be reduced from the current level (2003 or before);

Further noting that the advice from the ISC is that until appropriate measures are taken to reduce the fishing mortality rate the fishing mortality rate should not be increased;

Recognizing the ongoing work of the Northern Committee's working group on striped marlin, which is tasked with – among other things – "examining fish ~~behavior~~behaviour and fishing technologies in order to identify potential strategies to reduce striped marlin catches without unduly affecting catches of target species, while minimizing adverse impacts on fishermen," and~~,~~

Adopts, in accordance with the Article 10 of the WCPFC Convention that:

1. While the conservation advice from the ISC states that fishing mortality should be reduced from the current level to levels recorded in ~~(~~2003 or before~~)~~, in the interim the objective of this measure is to prevent any further increases in fishing mortality from the 2003 current level with an eye on long-term sustainability of the stock.

[2. The Commission Members, Cooperating Non-Members and participating Territories (herein referred to as CCMs) shall take measures necessary to limit the catch ~~amount~~ of North Pacific s~~S~~triped m~~M~~arlin caught in the area north of the Equator to the catch ~~amount caught (by weight)~~ in [2001, 2002 or] 2003. ~~With t~~The WCPFC Secretariat shall ~~to~~ provide advice to all CCMs ~~the Commission~~ on catch totals ~~caught by each CCM in~~ for [2001, 2002 and] 2003~~2003.~~ .

2 (alt.) The Commission Members, Cooperating Non-Members and participating Territories (herein referred to as CCMs) shall be encouraged to promote the use of mitigation measures to reduce catch to [2001, 2002 or] 2003 levels and reduce the mortality of the released catch. The WCPFC Secretariat shall provide advice to all CCMs on catch totals for [2001, 2002 and] 2003.

~~3. All CCMs shall provide annual catch and effort data for Pacific Striped Marlin north of the equator to the WCPFC annually as part of their Part 1 reporting requirements. The reports for both catch and fishing effort shall be made by gear type. Catches shall be reported in terms of weight. Fishing effort shall be reported in terms of the most relevant measures for a given type, including at a minimum for all gear types, the number of vessel days fished.~~

3~~4~~. CCMs shall endeavour to conduct research for identifying potentially practical methods~~effective mitigation methods that could serve~~ to reduce catch ~~rates~~ and post-release mortality ~~rates~~ for all gear types~~in longline fisheries~~. CCMs shall also endeavor to conduct fishing trials with the aim of assessing the practicality and effects – both beneficial and adverse – of such methods. This may include but not limited to measures in Appendix 1. CCMS shall report to the Secretariat on the progress of their efforts and research annually. ~~In particular, CCMs should consider research and fishing trials in the following areas:~~

~~□Modifying the configuration of longline gear to keep hooks out of the shallow zone, such as removing the shallowest hooks or lengthening floatlines or branchlines;~~
~~□Using alternative hook types and sizes;~~
~~□Identifying and avoiding specific geographical areas and/or periods or specific oceanographic conditions that tend to result in particularly high catch rates;~~
~~□Examining observer data and other data to estimate rates of survival of longline-caught striped marlin upon being boated;~~
~~□Using tagging and other data, as well as information on other billfish species, to estimate post-release survival rates of striped marlin after capture by longline; and~~
~~Employing post-capture handling and release methods to reduce the mortality rate of discarded fish.~~

4~~5~~. CCMs shall encourage fishermen to work with scientists and managers in an effort to develop measures in order to achieve the objectives of paragraphs 2 and 3. ~~cooperate to the extent possible with each other and with other appropriate partners in the conduct of such research and fishing trials.~~

5~~6~~. The Scientific Committee shall, in coordination with the Secretariat of the Pacific ~~Comm~~Committee~~ission, and~~ the ISC, and, other scientific bodies conducting scientific reviews of this stock~~, including the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), monitor~~ report on the measures tested by CCMs and the status of North Pacific s~~S~~triped m~~M~~arlin ~~and report~~ to the Commission at ~~on the status of the stock at~~ each annual meeting. The Commission shall consider future actions with respect to North Pacific striped marlin based on the recovery of the stock relative to future biological reference points selected by ~~, and make such recommendations to~~ the Commission~~ as may be necessary to achieve effective conservation~~.

~~7. The Commission shall consider future actions with respect to northern Pacific Striped Marlin based on recommendations of the Scientific Committee and Technical and Compliance Committee.~~

~~8. CCMs shall work to maintain, and as necessary reduce, the level of fishing mortality on northern Pacific Striped Marlin within the Convention Area commensurate with the long-term sustainability of the stock.~~

6~~9~~. The WCPFC Executive Director shall communicate this CMM to the IATTC and where appropriate the two Commissions shall engage in consultations with a view to reaching agreement on a consistent set of conservation and management measures for North~~northern~~ Pacific s~~S~~triped m~~M~~arlin, with consistent reporting and compliance measures where conformity can be achieved.

7~~10~~. The provisions of paragraph 2 shall not prejudice the legitimate rights and obligations under international law of those small island developing State Members and participating territories in the Convention Area whose current fishing activity for ~~northern~~ North Pacific s~~S~~triped m~~M~~arlin is limited, but

that have a real interest in, and history of, fishing for the species, that may wish to develop their own fisheries for Northern Pacific Striped Marlin in the future.

[8~~11~~. For the purposes of these measures, vessels operated under charter, lease or other similar mechanisms by developing island States and participating Territories, as an integral part of their domestic fleet, shall be considered to be vessels of the host State or Territory. Such charter, lease or other similar mechanism shall be conducted in a manner so as not to charter known illegal, unreported and unregulated (IUU) vessels.]

9.~~12~~ Unless otherwise stated, nothing in this measure shall prejudice the legitimate rights and obligations of those small island developing State Members and participating territories in the Convention Area seeking to develop their own domestic fisheries.

10. As an interim measure, until the Commission adopts a scheme relating to compliance with CMMs which includes responses when a flag State exceeds any limits assigned to it, if the catch of vessels flying the flag of a CCM exceeds the total catch specified for them under paragraph 2 above, that CCM will be subject to a reduction in their catch limit in the next year equal to the exceeded amount. The reduction will apply in the year immediately after it has been determined that the catch limit has been exceeded.

~~13. For the purpose of evaluating implementation of paragraph 2:~~

~~a. CCMs shall report to the Executive Director a list of their specific fisheries or fleets that have recorded catch of northern Pacific Striped Marlin and a description of the particular measures, as well as monitoring mechanisms, they have established to ensure that fishing effort in each of the fisheries or fleets does not increase above the 2003 level; and~~

~~b. the WCPFC Secretariat shall compile all the reports submitted under paragraph 3 and present the compilation to the seventh regular session of the Northern Committee and the seventh regular session of the Scientific Committee.~~

Appendix 1: Research and Fishing Trials

1. Modifying the configuration of fishing methods to avoid interactions with striped marlin (e.g., using alternative hook types and sizes). Form
2. Identifying and avoiding specific geographical areas and/or periods or specific oceanographic conditions that tend to result in particularly high catch rates.
3. Examining observer data and other data to estimate rates of survival of released striped marlin upon being boated. Form
4. Using tagging and other data, as well as information on other billfish species, to estimate post-release survival rates of striped marlin after capture.
5. Conducting reseach for identifying effective methods of tag and release of juvenile north Pacific striped marlin caught live in their fisheries.

~~1.~~6. Employing post-capture handling and release methods to reduce the mortality rate of discarded fish.

FISHERY MANAGEMENT PLAN AMENDMENT 2--ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES

The Pacific Fishery Management Council (Council) has been developing an amendment to the Highly Migratory Species (HMS) Fishery Management Plan (FMP) to address revised National Standard 1 guidelines as described in the Final Rule published on January 16, 2009 (74 FR 3178). At this meeting, the Council is scheduled to adopt a range of alternatives for public review. Final action to adopt a preferred alternative is scheduled for the June 2010 meeting. The Council and National Marine Fisheries Service (NMFS) are striving to have the FMP approved and implemented by 2011, the deadline established in the Magnuson-Stevens Reauthorization Act. (MSRA).

At the November 2009 Council meeting the Highly Migratory Species Management Team (HMSMT) provided initial recommendations for these alternatives. The Council provided guidance to the HMSMT relative to refining the alternatives further. They also directed the HMSMT to conduct a vulnerability analysis on shortfin mako, common thresher, and blue shark to assist in decision-making. The HMSMT met February 23-25, 2009, to review Council guidance, discuss the vulnerability analysis assignment, and further refine the alternatives per Council direction.

The HMSMT Report contains the results of the vulnerability analysis along with proposed alternatives for consideration by the Council. The alternatives are organized around five topics:

1) Classifying stocks in the FMP as management unit species (MUS) or ecosystem component (EC) species. Currently the FMP contains monitored species, which could be classified as EC species, MUS, or dropped from the FMP altogether. Likewise, some MUS could be reclassified as EC species.
2) Applying the MSA international exception to annual catch limits (ACLs) and accountability measures (AMs) for MUS. The Council directed the HMSMT to develop two options (in addition to No Action), one where the international exception would apply to all MUS and the other where it would apply to all MUS except for shortfin mako and common thresher shark.
3) Determining the primary FMP for MUS also addressed by the Western Pacific Fishery Management Council's (WPFMC) Pelagics FMP. All HMS FMP MUS are also part of the Pelagics FMP. PFMC and WPFMC staff met in December 2009 to discuss this issue and came to preliminary agreement. The HMSMT talked with WPFMC staff and the Pelagics Plan Team Chair to further refine the division of responsibilities.
4) Establishing reference points, including maximum sustainable yield (MSY) and status determination criteria (SDCs) for all MUS, and ACLs for shortfin mako and common thresher shark.
5) Determining appropriate accountability measures necessary to prevent ACLs from being exceeded, per the revised National Standard 1 guidelines.

The HMSMT is scheduled to meet with the SSC's HMS Subcommittee on Friday, April 9, 2010. Based on that meeting the HMSMT may include additional information on establishing reference points and ACLs to be considered under the alternatives.

Council Action:

1. **Adopt a range of alternatives for public review.**
2. **If appropriate, identify a preliminary preferred alternative.**

Reference Materials:

1. Agenda Item G.2.b. HMSMT Report.

Agenda Order:

a. Agenda Item Overview **Kit Dahl**
b. Reports and Comments of Advisory Bodies and Management Entities
c. Public Comment
d. **Council Action:** Adopt Alternatives for Public Review, Including Consideration of Identifying a Preliminary Preferred Alternative

PFMC
03/23/10

AMENDMENT 2 TO THE FISHERY MANAGEMENT PLAN FOR U.S. WEST COAST FISHERIES FOR HIGHLY MIGRATORY SPECIES: REVISED NATIONAL STANDARD 1 GUIDELINES (ANNUAL CATCH LIMITS) PROPOSED ALTERNATIVES

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT

1 Introduction

This report describes alternatives for consideration by the Council in order to address new Magnuson-Stevens Act (MSA) requirements, as amended through 2007, and the 2009 revisions of the revised National Standard 1 Guidelines (50 CFR 660.310). The Highly Migratory Species Management Team (HMSMT) met February 23-25, 2010, to further refine proposed alternatives presented at the November 2009 Council meeting, based on Council guidance. The Council is scheduled to adopt a range of alternatives for public review at their April 10-15, 2010 meeting. The alternatives are to be organized around the following topics:

1) Classification of stocks in the FMP as either management unit species (MUS) or ecosystem component (EC) species
2) Application of the MSA international exception to annual catch limits (ACLs) and accountability measures (AMs) for MUS
3) Determining the Primary fishery management plan (FMP) for MUS also addressed by the Western Pacific Fishery Management Council's (WPFMC) Pelagics FMP
4) Establishing Reference Points and Accountability Measures

Options for dealing with these four issues are discussed in the following sections of the report.

The HMSMT intends to provide additional recommendations on these issues in a supplemental report.

2 Reclassifying HMS FMP Management Unit Species and Monitored Species to Meet Revised National Standard 1 Guidelines

Classification Criteria in the Original HMS FMP

The HMS FMP identifies both **managed species** and **monitored species**. Section 3.1 of the original HMS FMP discusses classification criteria. The list of criteria for classification as a MUS included:

1. *the species occurs in the Pacific Council management area*
2. *the species occurs in west coast HMS fisheries*
3. *the species is defined as highly migratory in the MSA or the Law of the Sea Convention*
4. the species is important (moderate to high value) in the landings or to the fishery
5. the species is managed by the Western Pacific Fishery Management Council (WPFMC)
6. sufficient data exists to calculate a bio-analytically based MSY, including a reasonable MSY proxy that is based, e.g., on catches and yields that are stable over time
7. the species possesses special biological characteristics (e.g. low productivity)

The originally proposed HMS FMP stipulated that any species meeting the first three criteria on the list of MUS classification criteria would be strongly considered for inclusion. The Council chose to adopt the proposed action alternative, which was to include species "that are at least moderately important or of special conservation concern in West Coast HMS fisheries, and also managed by the WPFMC," leading to the current list of 13 HMS FMP MUS. Tunas, swordfish, striped marlin and HMS sharks were deemed variously important to commercial and sports interests, dorado (dolphinfish) was noted to be of growing importance in the Southern California recreational fishing industry, and all were mentioned to be of concern to conservationists, particularly the HMS sharks.

The criteria for inclusion in the original FMP for monitoring purposes included the following:

1. species having a record of being caught in an HMS fishery and not covered by another FMP or state management regime
2. otherwise of special concern (e.g. elasmobranches, which have relatively low productivity)

The original FMP noted that these species "often comprise a fishery's bycatch," and stated that they should be "monitored on a consistent and routine basis to the extent practicable. Sampling and coverage fraction will depend on the take rates of the species that are of the most concern. This monitoring is needed to evaluate the impact of HMS fisheries on incidental and bycatch species (as well as MUS) and to track the effectiveness of bycatch reduction methods."

Revised National Standard 1 Classification Criteria

The Guidelines introduce the concept of species "in the fishery," for which catch limits must be considered, and **ecosystem component (EC) species**, an optional stock classification category in an FMP; EC species do not require active management. The current FMP monitored species category seems to be very similar in concept to the EC category. The HMSMT decided that this FMP amendment provides an opportunity to take a comprehensive look at the current list of MUS and monitored species to determine which should be considered "in the fishery" and subject to management and which are more appropriately classified as EC species, and whether some of the species currently listed as monitored species in the FMP should be dropped altogether, because they are rarely if ever caught in current west coast HMS fisheries.

According to revised National Standard 1 Guidelines (600.310(d)(1)) all stocks in an FMP are considered to be "in the fishery" by default unless they are identified as ecosystem component (EC) species. There are several criteria that should be met for a species to be included in the EC category (§660.310(d)(5)). These are:

- Be a non-target stock/species;
- Not be subject to overfishing, approaching overfished, or overfished and not likely to become subject to overfishing or overfished in the absence of conservation and management measures; and,
- Not generally retained for sale or personal use, although "occasional" retention is not by itself a reason for excluding a species from the EC category.

One of the reasons given for including EC species in an FMP is for data collection purposes, which is consistent with the intent presented in the HMS FMP. EC species are not considered "in the fishery" but Councils should consider measures to minimize bycatch of these species consistent with National Standard 9. OY and reference points (MSY, OFL, SDC, ABC, ACL, ACT) do not need to be specified for EC species.[1] One of the essential purposes behind monitored species in the FMP and the EC species

[1] See Section 5.

in the Guidelines is similar: to track species over time, periodically evaluate their status, and assess whether any management is needed under the FMP, in which case a monitored/EC species could be reclassified as MUS that is "in the fishery." Other purposes for identifying EC species are to allow Councils to consider measures "to minimize bycatch and bycatch mortality of EC species consistent with National Standard 9, and to protect their associated role in the ecosystem."

Many of the monitored species are also currently WPFMC Pelagics Plan FMP MUS. Inclusion in another FMP could also be used as a criterion for determining whether a stock should be classified as an EC or in the fishery, if both Pelagics FMP fisheries and HMS FMP fisheries are catching the same stock. If a species is actively managed in that FMP, this would lend additional support to classifying it as an EC species if there is low susceptibility to HMS FMP fisheries. However, the WPFMC is considering reclassifying some of their MUS as EC species.

If a monitored/EC species is reclassified as a MUS in the fishery, then it should be determined:

- If the international exception should be applied, and
- If it is also an MUS in the Pelagics FMP, which FMP should be designated the primary FMP.

2.1 Proposed Reclassification of HMS FMP Management Unit Species and Monitored Species

The current tuna and billfish MUS should not be considered for reclassification as EC species. Even though west coast landings are small for some of these species, they are commercially important internationally, recreationally important domestically, or there are management concerns (overfishing or potential overfishing or overfished condition). Of the remaining species, the HMS FMP established harvest guidelines for common thresher and shortfin mako sharks, reflecting their importance in west coast commercial and recreational fisheries. Blue sharks, while not targeted and of low market value, are taken in large numbers in HMS fisheries; recent analyses indicate that the North Pacific population may be approaching MSY. This indicates that these species also should not be considered for reclassification.

The following current MUS are proposed for reclassification as EC species:

- Bigeye thresher shark
- Pelagic thresher shark

The following monitored species is proposed for reclassification as MUS:

- Opah

Opah is considered for MUS status because, although landings declined from 1998 to 2005 to less than 20 mt/year, they have been stable since 2006 at roughly 60 mt/yr (see Figure 1). Table 2 shows the distribution of landings by gear type for the period 1996-2009. (Note that 2009 data should be considered provisional.)

Table 1 presents commercial landings and estimated recreational catch information for the two shark MUS that may be considered for reclassification as EC species and the current list of monitored species. A number of these species may be appropriately dropped from the FMP as noted in the table. Only four species show average annual commercial landings for this recent time period over 1 mt: bat ray, escolar, louvar, and opah. However, further investigation shows that bat rays were landed by purse seine (an HMS gear) vessels targeting non-HMS species, so these landings should be discounted in terms of susceptibility to HMS fisheries. Opah landings are substantial; given the amount it is likely inappropriate to classify opah as an EC species. In addition, observer records from the drift gillnet (DGN) fishery show a high bycatch of common mola (ocean sunfish), generally exceeding target species catch (see Table 3

below). This species is almost universally discarded and observer information shows a very high proportion discarded alive, providing indication that bycatch mortality may be relatively low. Based on the criteria above, common mola seems to fit in the EC category.

The species listed to be dropped from the FMP are covered by other FMPs and are rarely landed by west coast HMS fisheries. A more focused list will allow more effective monitoring.

Table 1. Selected MUS and monitored species commercial landings and estimated recreational catch with reclassification recommendations.

Species	Other FMP Coverage	Average Annual Commercial Landings (mt) 2000-2008	Average Annual Recreational Dead Catch (mt) 2004-2008	Possible Reclassification
Selected MUS				
Bigeye thresher shark, *Alopias superciliosus*	WP Pelagics	4.80	**	Reclassify: EC
Pelagic thresher shark, A. pelagicus	WP Pelagics	1.76	**	Reclassify: EC
Monitored Species, commercial landings reported				
Opah, *Lampris guttatus*	WP Pelagics	37.56	0.1	Reclassify: MUS
Louvar, *Luvarus imperialis*		1.98	0.0	Reclassify: EC
Escolar, *Lepidocybium flavobrunneum*	WP Pelagics	1.58	0.0	Reclassify: EC
Bat ray, *Myliobatis californica*		1.43¥	1.0	Drop
Leopard shark, *Triakis semifasciata*	P Groundfish	0.63	4.4	Drop
Pelagic stingray, *Pteroplatytrygon violacea*		0.33	0.0	Reclassify: EC
Wahoo, *Acathocybium solandri*	WP Pelagics	0.26	0.0	Reclassify: EC
Hammerhead sharks, Sphyrnidae	WP Pelagics	0.10	0.0	Reclassify: EC
Oilfish, *Ruvettus pretiosus*	WP Pelagics	0.26	0.0	Reclassify: EC
Pacific pomfret, *Brama japonica*	WP Pelagics	0.02	0.0	Reclassify: EC
Black skipack,* *Euthynnus lineatus*	WP Pelagics	0.02	0.5	Reclassify: EC
Monitored Species, commercial landings not reported				
Black marlin, *Makaira indica*	WP Pelagics	†	0.0	Drop
Blacktip shark, *Carcharhinus limbatus*		–	0.0	Drop
Blue marlin, *Makaira nigricans*	WP Pelagics	–	0.0	Drop
Bullet mackerel (tuna), *Auxis rochei*	WP Pelagics	–	0.0	Reclassify: EC
Common mola, *Mola mola*		–	0.0	Reclassify: EC
Dusky shark, *C. obscurus*		–	0.0	Drop
Lancetfishes, Alepisauridae		–	0.0	Drop
Manta/Mobula rays, Mobulidae		†	0.0	Drop
Oarfish, *Regalecus glesne*		†	0.0	Drop
Oceanic whitetip shark, *C. longimanus*	WP Pelagics	†	0.0	Drop
Pacific bonito, *Sarda chiliensis*		–	4.2	Reclassify: EC
Pacific moonfish, *Selene peruviana*		†	0.0	Drop
Pacific sailfish, *Istiophorus platypterus*	WP Pelagics	–	0.0	Drop
Pacific saury , *Cololabis saira*		–	0.0	Drop
Prickly shark, *Echinorhinus cookei*		†	0.0	Drop
Rainbow runner, *Elagetis bipinnulata*		†	0.0	Drop

Species	Other FMP Coverage	Average Annual Commercial Landings (mt) 2000-2008	Average Annual Recreational Dead Catch (mt) 2004-2008	Possible Reclassification
Salmon shark, *Lamna ditropis*	AK Groundfish	‡	0.0	Drop
Shortbill spearfish, *Tetrapturus angustirostris*	WP Pelagics	†	0.0	Drop
Silky shark, *C. falciformis*	WP Pelagics	‡	0.0	Drop
Six gill shark, *Hexanchus riseus*	AK Groundfish	–	0.0	Drop
Soupfin shark, *Galeorhinus galeus*	AK & P Groundfish	–	0.0	Drop
Spiny dogfish, *Squalus acanthias*	AK & P Groundfish	–	0.1	Drop
Whale shark, *Rincodon typus*		†	0.0	Drop

Sources:

PacFIN ft and ftl tables; only landings by HMS gear types.

Average annual RecFIN HMS A+B1 catch (dead catch) weight estimates in metric tons for private and rental.

Notes:

*RecFIN does not separately report "black skipjack"; average for all skipjack catch is shown.

¥Although bat ray was landed with purse seine, a HMS gear, examination of species composition shows that the sets were made on CPS.

**RecFIN does not appear to separately report the different thresher shark species; total thresher

‡ Excluded because less than 3 vessels made landings during the time period.

† This species not separately identified in PacFIN.

–No landing record for this time period.

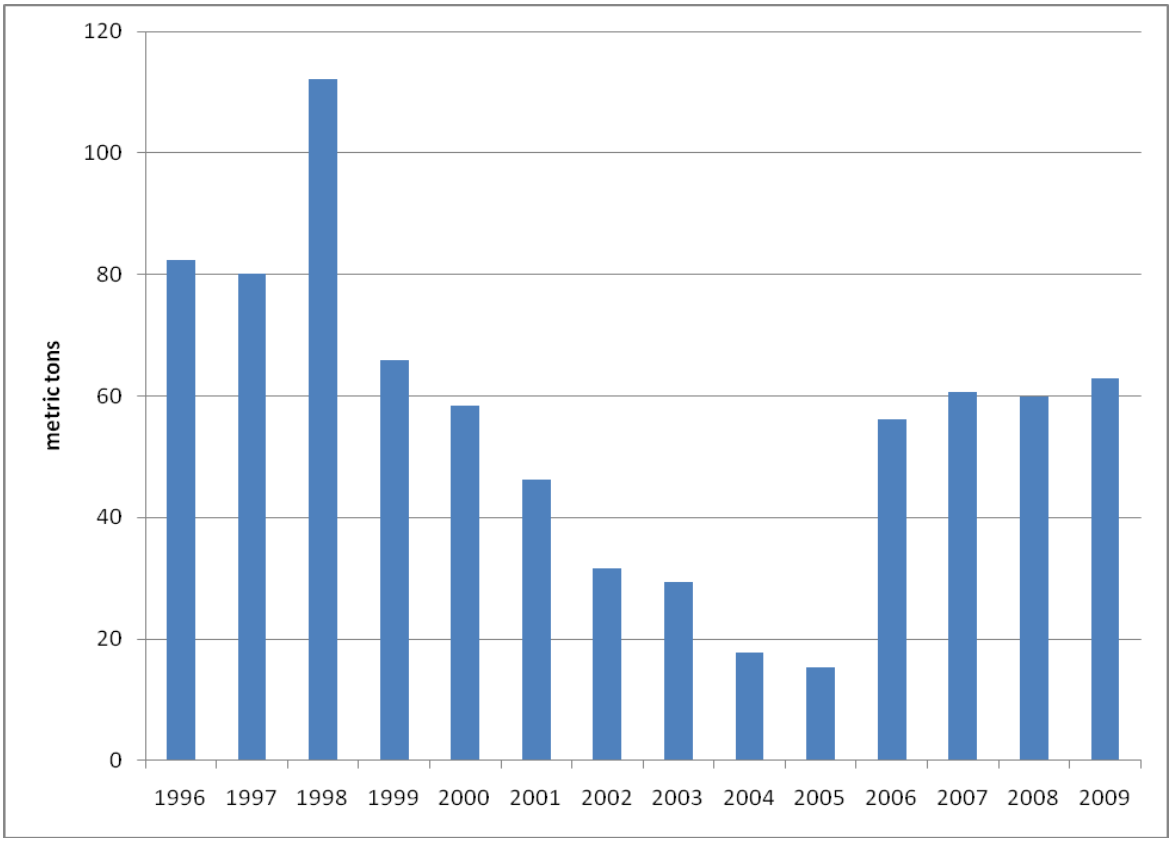


Figure 1. Landings of opah with HMS gear types, 1996-2009. (Source PacFIN 2/26/10)

Table 2. Opah landings by gear type, 1996-2009. (Source: PacFIN 3/2/10)

HMS Gear Type	Landings as percent of all opah landings with HMS gear	Vessels as percent of all HMS vessels with opah landings
Surface hook-and-line	0.4%	4.2%
Drift gillnet	92.7%	86.0%
Harpoon	0.1%	0.9%
Longline	6.8%	8.6%
Purse seine	<0.1%	0.2%

Table 3 shows the estimated numbers of MUS and monitored species from Table 1 above which were caught per year in the California drift gillnet fishery over the period from 2000-2008. The drift gillnet fishery can be considered the most informative west coast HMS fishery to currently use for observed finfish catch analysis since only a single vessel has been operating in the pelagic longline fishery for the past several years and the data cannot be presented here for reasons of confidentiality, and the other HMS gears that have significant effort (albacore troll, hook and line, purse seine) have limited selectivity and low bycatch.

Annual catch estimates provided in Table 3 represent the observed catch, some of which may have been landed, and thus should not be considered additions to the landings data in table 1. These estimates were developed from the observed catch drift gillnet catch counts over the calendar years 2000 through 2008. For each species, the total observed catch over this period was divided by the number of years, nine, to obtain an average observed catch per year. This average was multiplied by the ratio of the total number of drift gillnet sets fished over the 2000-2008 seasons (12,245) to the total number of observed sets over these seasons (2,457) to estimate the catch per year over the period. These data do not indicate post-release mortality; some species included in the table (e.g. common mola) are known to have a very high live discard rate, mitigating concerns about high estimated annual catch rates.

Among monitored species with commercial landings, opah stood out as a marketable species with an estimated catch of nearly 1,000 per year. Its commercial value and relatively higher catch support the case for reclassifying opah as an MUS while reclassifying most of the other monitored species with commercial landings as ecosystem component species. Bat ray and leopard shark might be candidates for species to drop from the FMP. The small amount of bat ray landings are believed to occur as bycatch in the CPS purse seine fishery, while observed DGN bycatch is negligible. Leopard shark had no observed catch and is covered in the PFMC's Groundfish Management Plan.

Among monitored species with no reported commercial landings, only bullet mackerel, common mola, and Pacific bonito had estimated catch over fifteen per season. Absent evidence of significant catch (bycatch) in other HMS gears besides drift gillnet, this data supports the case for reclassifying these three species as ecosystem components and dropping the remaining monitored species with no reported commercial landings and negligible observed bycatch from the FMP. The Council might more generally consider establishing a threshold level of observed catch below which a species could be excluded from the FMP as either an MUS or as an ecosystem component species.

Table 3. Selected MUS and monitored species estimated annual observed California drift gillnet catches (number of fish) and reclassification recommendations. Species in bold italics proposed for consideration of reclassification.

Species	Estimated Catch Per Year, 2000-2008	Possible Reclassification
Selected MUS		
Blue shark, Prionace glauca	2,271	Keep as MUS

Species	Estimated Catch Per Year, 2000-2008	Possible Reclassification
Bigeye thresher shark, Alopias superciliosus	123	Reclassify: EC
Pelagic thresher shark, *A. pelagicus*	1	Reclassify: EC
Monitored Species, commercial landings reported		
Opah, *Lampris guttatus*	997	Reclassify: MUS
Louvar, *Luvarus imperialis*	137	Reclassify: EC
Escolar, *Lepidocybium flavobrunneum*	1	Reclassify: EC
Bat ray, *Myliobatis californica*	6	Drop
Leopard shark, *Triakis semifasciata*	0	Drop
Pelagic stingray, *Pteroplatytrygon violacea*	80	Reclassify: EC
Wahoo, *Acathocybium solandri*	0	Reclassify: EC
Hammerhead sharks, *Sphyrnidae*	7	Reclassify: EC
Oilfish, *Ruvettus pretiosus*	5	Reclassify: EC
Pacific pomfret, *Brama japonica*	73	Reclassify: EC
Black skipack, *Euthynnus lineatus*	0	Reclassify: EC
Monitored Species, commercial landings not reported		
Black marlin, *Makaira indica*	0	Drop
Blacktip shark, *Carcharhinus limbatus*	0	Drop
Blue marlin, *Makaira nigricans*	8	Drop
Bullet mackerel (tuna), *Auxis rochei*	116	Reclassify: EC
Common mola, *Mola mola*	12,738	Reclassify: EC
Dusky shark, *C. obscurus*	0	Drop
Lancetfishes, *Alepisauridae*	1	Drop
Manta/Mobula rays, *Mobulidae*	2	Drop
Oarfish, *Regalecus glesne*	0	Drop
Oceanic whitetip shark, *C. longimanus*	0	Drop
Pacific bonito, *Sarda chiliensis*	412	Reclassify: EC
Pacific moonfish, *Selene peruviana*	0	Drop
Pacific sailfish, *Istiophorus platypterus*	0	Drop
Pacific saury , *Cololabis saira*	0	Drop
Prickly shark, *Echinorhinus cookei*	1	Drop
Rainbow runner, *Elagetis bipinnulata*	0	Drop
Salmon shark, *Lamna ditropis*	15	Drop
Shortbill spearfish, *Tetrapturus angustirostris*	0	Drop
Silky shark, *C. falciformis*	0	Drop
Six gill shark, *Hexanchus riseus*	1	Drop
Soupfin shark, *Galeorhinus galeus*	1	Drop
Spiny dogfish, *Squalus acanthias*	1	Drop
Whale shark, *Rincodon typus*	0	Drop

2.2 Vulnerability Analyses to Inform Reclassification Decisions

Vulnerability analyses were conducted using the methods developed by the NMFS Vulnerability Evaluation Work Group (VEWG).[2] The vulnerability of a stock to becoming overfished is defined in the NS1 guidelines as a function of its productivity ("the capacity of the stock to produce MSY and to recover if the population is depleted") and its susceptibility to the fishery ("the potential for the stock to be impacted by the fishery, which includes direct captures, as well as indirect impacts to the fishery"). The guidelines note that the "vulnerability" of fish stocks should be considered when: 1) differentiating between stocks "in the fishery" and "ecosystem components"; 2) assembling and managing stock complexes; and 3) creating management control rules. The analysis uses a semi-quantitative method to rate both the productivity of the stock, based on life history characteristics, and the susceptibility of the stock to the fishery of interest based on catchability and the overall impact of the fishery to the stock and its habitat.

Analyses were conducted for the pelagic sharks, opah, and two west coast HMS target species for comparison. Susceptibility of these species to the drift gillnet fishery, which with the exception of albacore, is the west coast HMS fishery catching these species in the greatest number, was examined.

The results demonstrate that the pelagic sharks have very low productivity and all species fall in a relatively narrow range of susceptibility to the drift gillnet fishery. This is not surprising. Sharks have slow growth, low fecundity, and a high trophic level contributing to a low overall productivity. Because all species are highly migratory and utilize a large portion of the water column including the depths at which the drift gillnet fishes, and the large mesh drift gillnet gear operates as an entangling net and captures a broad range of species, susceptibility differs among the species only by the extent to which they overlap with the fishery area (e.g. pelagic threshers are generally distributed farther south and are rarely taken in the fishery with the exception of during el Niño years), the relative distribution of the stock (e.g., common threshers in the EPO are distributed along the west coast of the U.S. and Baja and not as widely ranging as the other species), or the value to the fishery (e.g., blue sharks are not desirable). The overall scores reflect some of these differences, but because the gillnet gear is not terribly selective, all can be considered somewhat susceptible. The HMSMT feels that the results of the vulnerability analysis alone do not particularly help in determining whether reclassification is warranted. In combination with the catch history, bigeye and pelagic threshers appear to be the least susceptible of the pelagic sharks to the drift gillnet fishery. While the overall vulnerability score for opah is lower than for the pelagic sharks, there is also the greatest uncertainty about the species as indicated by the higher data quality scores. In addition, as stated above, opah catch has been relatively high and stable for the past 4 years. Observer records also indicate that nearly all opah are either landed or discarded dead.

Table 4. Results of the vulnerability analysis. Productivity scores can range from 1 (low productivity and low susceptibility) to 3 (high productivity and high susceptibility). Data quality scores can range from 1 (best quality data) to 5 (no data).

PFMC DGN Fishery	Productivity		Susceptibility		Vulnerability
Species	Weighted Attribute Score	Weighted Data Quality Score	Weighted Attribute Score	Weighted Data Quality Score	
Common thresher	1.200	2.100	2.000	2.667	2.059
Shortfin mako	1.250	2.100	1.800	2.750	1.924

[2] Patrick, W. S., P. Spencer, O. Ormseth, J. Cope, J. Field, D. Kobayashi, T. Gedamke, E. Cortés, K. Bigelow, W. Overholtz, J. Link, and P. Lawson. 2009. Use of productivity and susceptibility indices to determine stock vulnerability, with example applications to six U.S. fisheries. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-101, 90 p.

Pelagic thresher	1.200	2.200	1.611	3.167	1.901
Bigeye thresher	1.300	2.200	1.667	2.917	1.826
Blue shark	1.400	1.800	1.750	2.000	1.767
Opah	1.500	3.700	1.889	3.000	1.744
Swordfish	1.750	2.000	1.833	1.917	1.502
Albacore	1.800	2.200	1.833	1.750	1.461

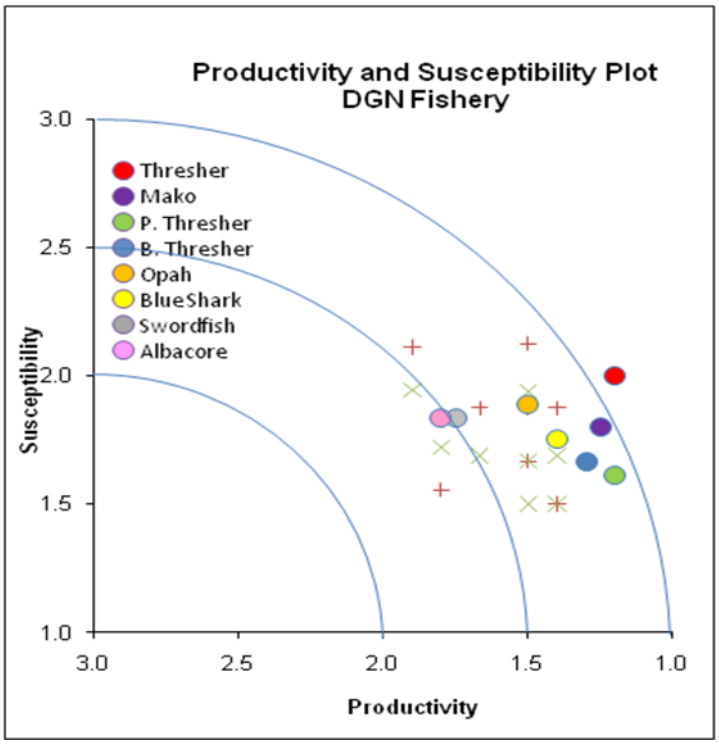


Figure 2. Vulnerability plot for the species under consideration and two commercially important species (swordfish and albacore). Susceptibility scores are based on the drift gillnet fishery that targets swordfish. The range of values for the same species for the HI tuna (+) and HI swordfish (×) longline fisheries are also shown for comparison.

3 Application of the International Exception to Management Unit Species

Once any changes to the list of HMS FMP MUS are determined, the Council would need to decide which of these would be subject to the MSA "international exception." Section 660.310(h)(2)(ii) of the revised National Standard 1 Guidelines, relating to international fishing agreements, applies to stocks or stock complexes subject to management under an international agreement, which is defined as "any bilateral or multilateral treaty, convention, or agreement which relates to fishing and to which the United States is a party." For stocks that meet this exception, only MSY, OY, and SDCs have to be defined. ABC, ACLs, and AMs are not required.

3.1 Proposed Alternatives

In November 2009 the Council indentified the following alternatives for consideration for determining to which MUS this exception could apply.

Opah, the monitored species reclassified as an MUS, would be subject to the international exception as well.

1. Apply the international exception to all of the HMS MUS

The rationale for this alternative is that both the IATTC and WCPFC (the two RFMOs that manage HMS stocks in the Pacific at the international level) include general statements in their charter documents asserting broad management authority over all HMS species. Article 1 of the IATTC Antigua Convention, which enters into force August 24, 2010, defines fish stocks covered by this Convention as "stocks of tunas and tuna-like species and other species of fish taken by vessels fishing for tunas and tunal-lie species in the Convention Area." Article 2 of the WCPFC Convention states "The objective of this Convention is to ensure, through effective management, the long-term conservation and sustainable use of highly migratory fish stocks in the western and central Pacific ..." Article 1 defines highly migratory fish stocks as "all fish stocks of the species listed in Annex 1 of the 1982 Convention occurring in the Convention Area, and such other species of fish as the Commission may determine." All of the HMS MUS are found on the referenced Annex 1 list.

Furthermore, the WPFMC has indicated that it is considering applying the international exception to all MUS in their Pelagics FMP after reclassifying selected MUS as EC species (personal communication from Paul Dalzell, Senior Staff Scientist, WPFMC). Since all HMS FMP MUS are also Pelagics FMP MUS applying the international exception to all HMS FMP MUS would be consistent with the WPFMC's approach. The two Councils should ensure consistency in their treatment of these stocks with respect to the international exception and, as necessary, agree upon which will become the primary FMP (see Section 4 below).

The RFMOs regularly conduct stock assessments for tuna and billfish species in the HMS FMP. Conservation measures have been adopted, or are under consideration for many of the species in the HMS FMP. Table 5 summarizes information on stock assessments and RFMO activities.

Table 5. Summary of stock assessments and RFMO conservation measures for HMS FMP MUS.

Species (stocks)	Assessment and conservation measures
Tunas	
Albacore tuna, *Thunnus alalunga* (NPO)	Regularly assessed by the ISC. IATTC and WCPFC conservation measures in place
Bigeye tuna, *T. obesus* (EPO, WCPO)	Regularly assessed by WCPFC and IATTC and both RFMOs have conservation measures in place
Skipjack tuna, *Katsuwonus pelamis* (EPO, WCPO)	Regularly assessed by the WCPFC and IATTC; no specific conservation measure in place but both RFMOs are addressing purse seine fleet capacity
Bluefin tuna, *T. orientalis* (NPO)	Occasionally assessed by the ISC; the WCPFC adopted a conservation measure in 2009
Yellowfin tuna, *T. albacares* (EPO, WCPO)	Regularly assessed by WCPFC and IATTC and both RFMOs have conservation measures in place
Billfish	
Striped marlin, *Tetrapturus audax* (NPO, EPO)	Occasionally assessed by the ISC and IATTC; WCPFC considered conservation measure in 2009 to be developed further in 2010
Swordfish, *Xiphias gladius* (NPO, SEPO)	Occasionally assessed by the ISC and IATTC;

	WCPFC has conservation measure for SP stock
Sharks	
Bigeye thresher shark, *Alopias superciliosus*	NMFS has occasionally assessed selected species; IATTC and WCPFC adopted conservation measures for sharks (C-05-03, CMM-2008-06). The WCPFC identifies "key shark species" as blue shark, oceanic whitetip shark, mako sharks, silky sharks, and thresher sharks
Blue shark, *Prionace glauca*	
Common thresher shark, A. *vulpinus*	
Pelagic thresher shark, A. *pelagicus*	
Shortfin mako shark, *Isurus oxyrinchus*	
Other	
Dorado (dolphin), *Coryphaena hippurus*	IATTC has consolidated bycatch resolution referencing dorado (C-04-05); WCPFC has nonbinding resolution on bycatch species
Possible Additional MUS	
Opah, *Lampris guttatus*	IATTC has consolidated bycatch resolution (C-04-05); WCPFC has nonbinding resolution on bycatch species

2. Apply the international exception to all MUS except for common thresher shark and shortfin mako shark

Under this alternative the international exception would be applied to all MUS except for common thresher shark and shortfin mako shark, because of their significance in west coast EEZ fisheries. In addition to tuna and billfish MUS, the international exception would cover bigeye thresher shark, blue shark, pelagic thresher shark, and dorado. The HMS FMP established harvest guidelines for common thresher and shortfin mako sharks, to which the international exception would not apply. This reflects the fact that west coast fisheries catch these species in more than negligible quantities. Thus, even though there is evidence that RFMOs are managing shark species included in the HMS FMP, it may be appropriate to consider adopting ACLs (and perhaps reevaluating the current harvest guidelines) for these two species.

3. Apply the international exception for all MUS except for common thresher shark

Apply the international exception to all MUS except for common thresher shark, based on the broader range of blue and shortfin mako sharks outside the West Coast EEZ versus the relatively more coast bound range of the common thresher shark (see next section). Although a large portion of the common thresher shark stock appears to inhabit Mexico waters and they are taken in large numbers in near shore fisheries there, the HMSMT heard at their February 2010 meeting from Dr. Sosa-Nishizaki, an scientist of Mexico's Pacific HMS fisheries, that the fisheries there may be declining. He also believes the Mexico catch of common threshers has probably been in decline over the past decade.

3.2 Information Regarding the Range of HMS Shark Species in Current FMP

Figures 3, 4 and 5 shown below display recapture locations for tagged specimens of three HMS shark MUS which is indicative of their ranges (NMFS SWFSC unpublished data): blue shark (Figure 3), shortfin mako shark (Figure 4) and common thresher shark (Figure 5). The three plots suggest a pronounced difference with respect to the ranges of the three species, with some tagged blue shark and shortfin mako sharks recaptured in the Western Pacific Ocean; by contrast, the tagged common thresher shark were almost all recaptured within close proximity of the West Coast, with only one of the tagged thresher sharks recovered as far as 250 km off shore. The recapture data indicate that the ranges of blue shark and shortfin mako shark cover a far broader longitudinal range of the Pacific Basin then the common thresher shark range. The recapture data for common thresher shark also provides evidence of a shared stock between U.S. and Mexico coastal waters whereas mako and blue shark stocks go well beyond the national EEZs into international waters.

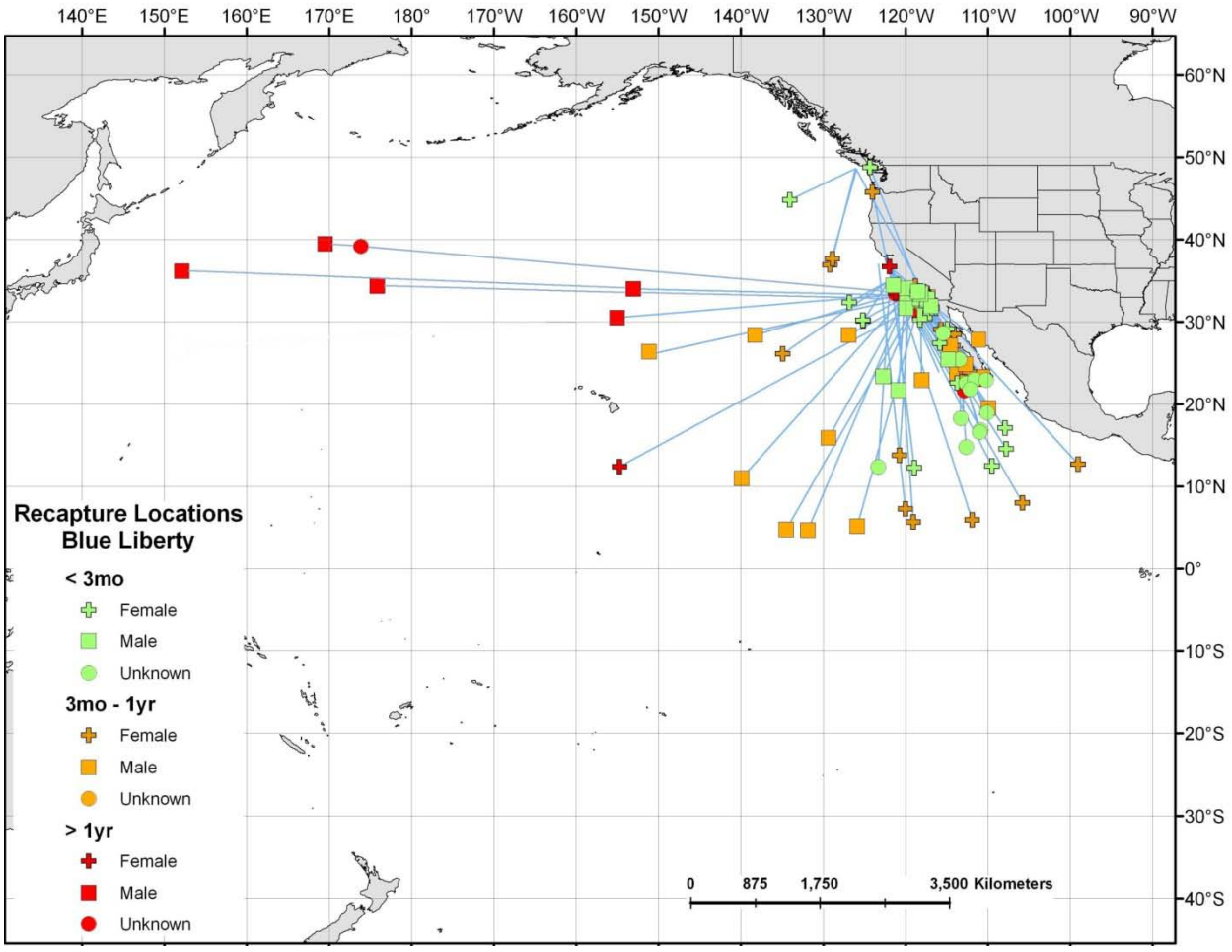


Figure 3. Tagged blue shark recapture locations.

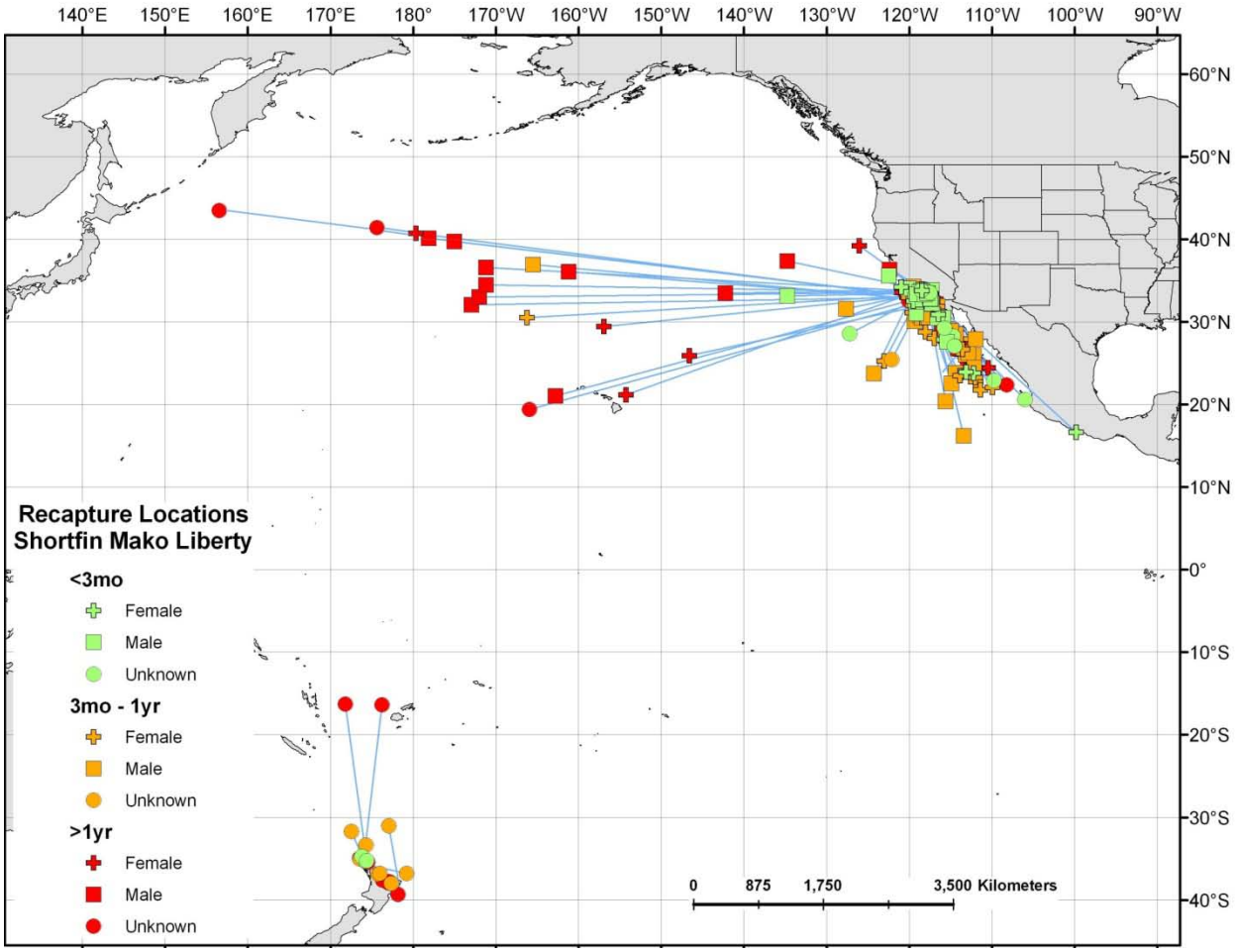


Figure 4. Tagged shortfin mako shark recapture locations.

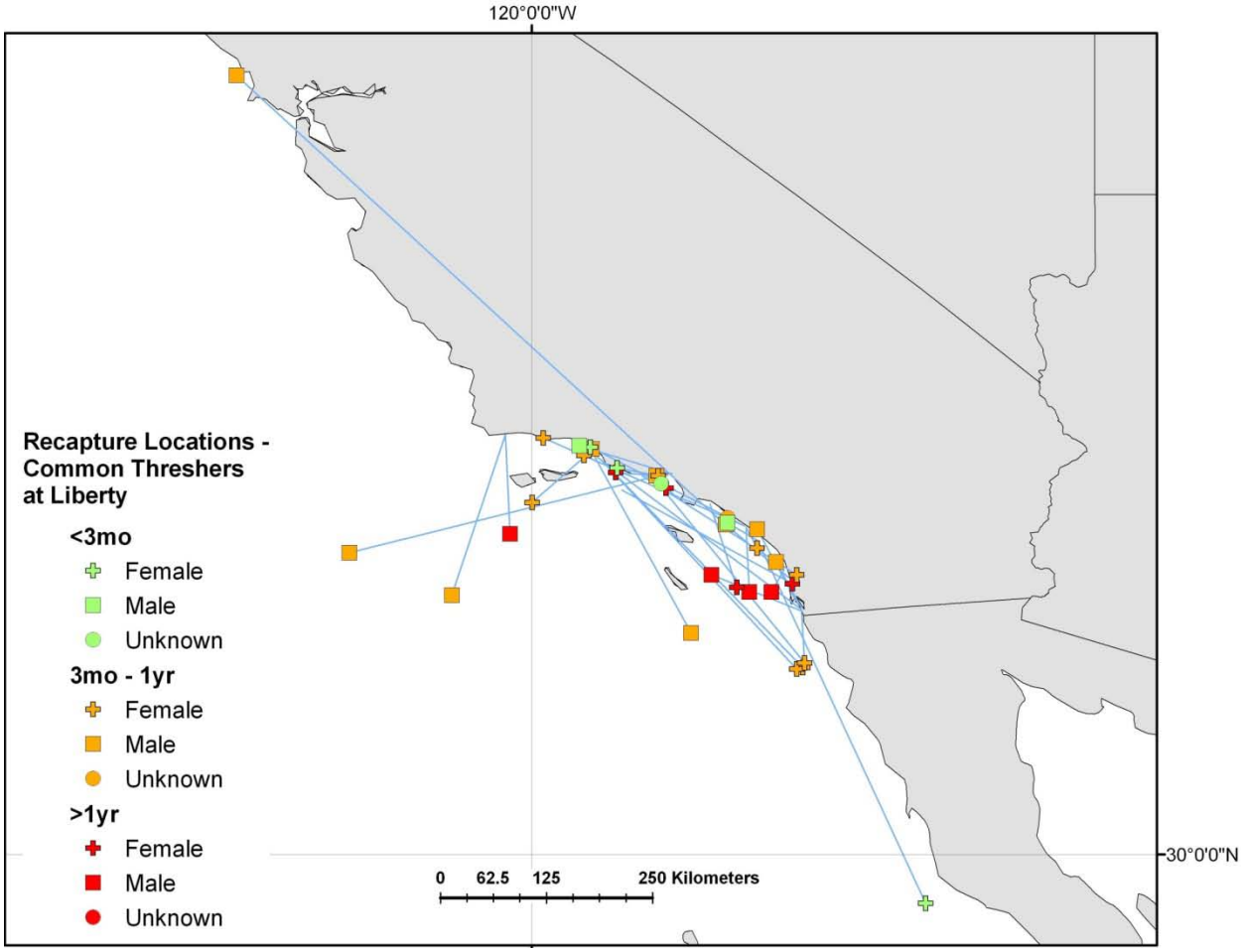


Figure 5. Tagged common thresher shark recapture locations.

4 Determining the Primary FMP for Management Unit Species

Because HMS FMP MUS are also currently MUS in the WPFMC's Pelagics FMP, coordination between the two councils is necessary. Section 600.310(d)(7) of the Guidelines states that Councils *should* choose which FMP will be the primary FMP in which management objectives and other requirements of the Guidelines will be established in cases where a stock or species is identified in more than one FMP. Thus, it may be necessary to decide which FMP will address the requirements of the Guidelines, with the other FMP incorporating those measures in parallel.

In November 2009 the HMSMT proposed basing this decision on assessed stocks rather than species. For the tropical tunas (bigeye, skipjack, and yellowfin) the WCPFC produces stock assessments based on the stock for the Western Pacific while the IATTC does the same for the Eastern Pacific.[3] The Pelagics FMP Annual Report (SAFE document) reports SDCs for Pelagics FMP MUS; generally WCPO stocks (or NPO/SPO stocks) are reported, but not EPO stocks. In addition, at the NMFS regional level there has been an informal division of responsibility at the stock level, so that SWR/SWFSC assumes responsibility

[3] Although these stocks may not be separate from a biological or population genetics standpoint, there may be relevance to the division from a management standpoint.

for EPO stocks (and some NPO stocks like albacore) while PIRO/PIFSC covers the WCPO stocks, SPO stocks, and some NPO stocks (lead responsibility for interfacing with the RFMOs is similarly divided). NMFS is currently discussing a formalization of these arrangements.

After an initial proposal made by the HMSMT in November 2009 and guidance from the Council, PFMC and WPFMC staffs met in December 2009 to discuss this issue. During their February 23-25, 2010, meeting, the HMSMT spoke with Paul Dalzell, WPFMC Staff Scientist and Keith Bigelow, Chair of the Pelagics Plan Team. Table 6 summarizes proposed identification of the primary FMP that has been made to date based on these discussions. The WPFMC' SSC and the Pelagics Plan Team will be meeting in April to further address classification of FMP stocks and related issues. Results of those discussions will inform further decisions on this issue.

Since most or all stocks may be subject to the international exception under both FMPs it would be necessary only to identify MSY, SDCs, and OY. Both Councils could rely on RFMO sponsored stock assessments to identify these reference points. As discussed further below, the HMS FMP includes methods for determining MSY or an MSY proxy, SDCs and OY. OY may be set equal to MSY or to 0.75MSY for vulnerable stocks.

Although MUS would be identified at the stock level for the purpose of identifying reference points in the respective FMPs, the PFMC would continue to maintain a Pacific-wide management interest in the species and therefore report reference points for WCPO stocks based on what is reported by the WPFMC.

Table 6. Proposed primary FMP for HMS MUS.

Species	Proposed Primary FMP Designations
Tunas	
Albacore tuna, *Thunnus alalunga* (NPO)	HMS FMP
Bigeye tuna, *T. obesus* (EPO, WCPO)	EPO: HMS FMP / WCPO: Pelagics FMP
Skipjack tuna, *Katsuwonus pelamis* (EPO, WCPO)	EPO: HMS FMP / WCPO: Pelagics FMP
Bluefin tuna, *T. orientalis* (NPO)	HMS FMP
Yellowfin tuna, *T. albacares* (EPO, WCPO)	EPO: HMS FMP / WCPO: Pelagics FMP
Billfish	
Striped marlin, *Tetrapturus audax* (NPO, EPO)	Pelagics FMP (NPO) / HMS FMP (EPO)
Swordfish, *Xiphias gladius* (NPO)[4]	Pelagics FMP (NPO) / HMS FMP (EPO)[4]
Sharks	
Bigeye thresher shark, *Alopias superciliosus*	May be classified as EC species under Pelagics FMP & HMS FMP
Blue shark, *Prionace glauca*	May be classified as EC species under Pelagics FMP, MUS in HMS FMP
Common thresher shark, A. *vulpinus*	HMS FMP
Pelagic thresher shark, A. *pelagicus*	May be classified as EC species under Pelagics FMP & HMS FMP
Shortfin mako shark, *Isurus oxyrinchus*	HMS FMP
Other	
Dorado (dolphin), *Coryphaena hippurus*	Not determined
Possible Additional MUS	
Opah, *Lampris guttatus*	Not determined

5 Establishing Reference Points, Annual Catch Limits, and Accountability Measures

5.1.1 The National Standard 1 Guidelines identify the various reference points

The National Standard 1 Guidelines identify the various reference points (see Section 5.3 below) that must be specified for stocks "in the fishery," which will include the HMS FMP's MUS. As noted above, although the MSA international exception to ACLs and AMs may be applied to some HMS FMP MUS, MSY, OY, and SDCs must nevertheless be specified for these stocks. The stocks "in the fishery" (i.e., HMS MUS) for which this exception does not apply are required to have all of the reference points described in Table 7 specified, and ACLs and AMs as well. However, as mentioned above, because HMS FMP MUS are also in the WPFMC Pelagics FMP, identification of a primary FMP at the stock level

[4] The HMS FMP identified EPO swordfish as the managed stock. IATTC conducts stock assessments on EPO swordfish. Recent genetics studies, fishery and demographics data conclude that the NEPO and SEPO stocks may be distinct. The latest IATTC swordfish assessment was conducted for the SEPO only. Due to uncertainty about stock structure, the HMSMT proposes that the primary FMP for the NPO stock be the Pelagics FMP while responsibility for reporting on EPO assessments would be covered under the HMS FMP.

could be made. In cases where the Pelagics FMP is the primary FMP the WPFMC would identify reference points and the application of the international exception for those stocks (see Table 6).

5.2 Current Reference Points in the HMS FMP

The HMS FMP identifies values for MSY and OY for the MUS.

The HMS FMP also defines default formulas for the maximum fishing mortality threshold (MFMT) and the minimum stock size threshold (MSST), which are status determination criteria (SDC). MFMT is equal to F_{MSY}. MSST is defined as:

- $0.5B_{MSY}$ when natural mortality (M) > 0.5
- $(1\text{-}M)B_{MSY}$ when $M \leq 0.5$

The FMP also describes an alternative approach for setting a proxy OY value for vulnerable species at 75 percent of MSY. According to the FMP, all the managed shark species are considered vulnerable as is bluefin tuna and striped marlin.

The revised Guidelines introduce a new reference point, the overfishing limit (OFL) that may be used as an alternative reference point in determining the overfishing status of a stock. The Guidelines explain that overfishing may be determined as either F>MFMT or annual catch > OFL.

5.3 Reference Points for Stocks Subject to the International Exception

5.3.1 Assessed Stocks

The HMSMT, in consultation with the SSC, would identify MSY (and OY) and SDCs for those assessed stocks for which the HMS FMP is considered the primary FMP (see Section 4), while the WPFMC Pelagics Plan Team would identify MSY and SDCs for stocks where the Pelagics FMP is the primary FMP.

The current default formula for SDCs (MFMT and MSST) in the HMS FMP would be used until RFMOs formally adopt reference points for a stock. Consistent with U.S. obligations under international agreements, these reference points would then be incorporated into the HMS FMP as part of regular reporting in the HMS SAFE, discussed below.

Of the current or proposed MUS, assessments of the following species are conducted on a regular (at 1 to 5 year intervals) basis or have recently been assessed providing some information on updated MSYs and SDCs:

- Albacore (NPO)
- Bluefin tuna (NPO)
- Bigeye tuna (EPO and WCPO)
- Skipjack tuna (EPO and WCPO)
- Yellowfin tuna (EPO and WCPO)
- Swordfish (NPO)
- Striped marlin (NPO and EPO)
- Blue shark (NWPO)

5.3.2 Unassessed Stocks

The HMSMT, in consultation with the SSC, would identify proxy MSYs and SDCs for those unassessed stocks for which the HMS FMP is considered the primary FMP (see Section 4), while the WPFMC Pelagics Plan Team would identify proxy MSYs and SDCs for unassessed stocks where the Pelagics FMP is the primary FMP. Stock assessments are not routinely or have never been conducted on the following MUS or proposed MUS stocks:

- Common thresher shark
- Pelagic thresher shark
- Bigeye thresher shark
- Shortfin mako shark
- Dorado
- Opah

For these stocks MSY proxies would be determined based on the best available information on the status of the stock and sustainable catch levels. In many cases, if stock structure is unknown, a subset of the Pacific-wide stock is selected and regional catch and demographic information is used to develop a regional MSY proxy. During the development of the FMP, a number of methods were used to determine MSY proxies for the unassessed stocks. These included:

- Common thresher shark: A production function analysis was conducted to determine a direct estimate of sustainable productivity based on the life history characteristics of thresher sharks. A regional sustainable catch (LMSY) was then calculated for a time in the fishery when the west coast catch had stabilized and the CA/OR drift gillnet fishery CPUE was beginning to increase (1992-1993).
- Pelagic thresher shark: LMSY proxy was calculated as average catch during strong El Niño years (here 1983, 1984, and 1997) when species presence became significant.
- Bigeye thresher shark: Average catch 1982-99.
- Shortfin mako shark: LMSY proxy as average 1981-1999 west coast catch; is a minimal estimate of MSY
- Dorado: Mean of 1995-99 stock-wide (EPO) catches.

The HMSMT has identified a few potential methods for determining MSY for unassessed species that may be used instead of or in conjunction with catch history and the methods used at the time of plan development, including the Depletion Corrected Average Catch Method of Alec McCall.[5] The team will discuss these potential methods with the SSC on April 9, 2010, and report to the Council in a supplemental report.

5.4 Determining Annual Catch Limits for Species not Subject to the International Exception

As indicated above, the majority of HMS FMP MUS stocks may fall under the International Exception in which case ACLs will not be developed independently by the PFMC. Management measures will be imposed by the RFMOs with the Councils providing guidance and input based on the activities of the domestic fisheries as specified under the reauthorized Magnuson-Stevens Act.

[5] McCall, A. D. 2009. Depletion-corrected average catch: a simple formula for estimating sustainable yields in data-poor situations. ICES J. Mar. Sci. 66: 2267–2271.

In the event that some species will not fall under the International Exemption, the HMSMT has considered a number of potential methods for determining ACLs. Specifically, the range of alternatives presented here include the possibility that common thresher shark, or both common thresher and shortfin mako sharks do not fall under the international exemption. For these two species a regional annual harvest guildeline was established based on the LMSY calculated at the time of FMP development. These were equal to the OY, or 0.75MSY. Once updated reference points, including MSY and OY are recalculated for the MUS, the ACL could be set to equal OY.

The HMSMT will be taking up determining ACLs for species not subject to the International Exemption with the HMS subcommittee of the SSC on April 9, 2010, and will report more details to the PFMC in a supplemental report.

5.5 Identifying Accountability Measures for Stocks Subject to Annual Catch Limits

Accountability measures are management controls to prevent ACLs from being exceeded and to respond to a situation where an ACL has been exceeded. Inseason AMs include monitoring and management measures to prevent catch from exceeding ACLs, and may include annual catch targets (ACTs). If an ACL is exceeded more than once every four years then the system of ACLs and AMs should be re-evaluated and modified as necessary.

Chapter 5 in the HMS FMP describes a framework for the periodic specification of quotas, harvest guidelines, and an array of management measures. In section 6.1.7, describing quotas and harvest guidelines, the FMP authorizes the following procedure:

> The HMS Management Team, at its annual meeting in May or June, will review the catches from the previous statistical year (April 1-March 31) and compare those catches with the established harvest guidelines; evaluate the status of the stocks; and develop recommendations for management measures, as appropriate. These management measures will be presented to the Council as part of the SAFE document at its June and/or September meetings to be reviewed and approved for public review. Final action on management measures would be scheduled for the Council's November meeting.[6]

The specification process operates on a 2-year, or biennial, schedule. The fishing year is defined as April 1-March 31 and the current biennial period ends on March 31, 2011. The Council has considered implementation or adjustment of management measures for two biennial periods since implementation of the HMS FMP (2007-2009 and 2009-2011). For the first cycle the Council adopted new recreational bag limits for albacore tuna and modified vessel marking requirements for CPFV vessels. For the second cycle the Council considered measures to constrain the recreational catch of common thresher shark (time/area closures, bag limits) but ultimately did not recommend new regulatory measures.

This framework provides flexibility to respond to changing conditions in fisheries. It is very similar to the specifications framework authorized by the Groundfish FMP. As part of the biennial process, routine management measures can be identified. These can be implemented or modified inseason through a single Council meeting and one Federal Register notice ("notice actions") or two Council meetings and one Federal Register notice ("abbreviated rulemaking"). To date the Council has not done any inseason management under the HMS FMP, because no pressing resource conservation issues have arisen that can be dealt with unilaterally (without international action).

[6] Although this paragraph uses the term "management measures," given the context it may be assumed that the specific reference would be to quotas or harvest guidelines.

This framework is readily adaptable to the requirements of the Guidelines. The FMP would still need to be amended to explain how the AMs would be related to the ACLs in terms of their function in preventing an ACL from being exceeded or addressing situations where post-season accounting shows an ACL has been exceeded.

If ACLs were established for any MUS, perhaps the more pressing issue would be whether current catch monitoring systems are sufficient to ensure that an ACL would not be exceeded. Specifically, if the ACL is developed as a limit on total removals (catch and dead discards) then appropriate monitoring of bycatch would need to be ensured. Some components of the recreational fishery may be poorly monitored. For some species many fishermen practice catch-and-release, and post-release mortality rates are not well estimated.[7] Finally, data availability and analysis of total removals would need to be timely if inseason measures are needed to prevent an ACL from being exceeded.

Table 7. Items to include in FMPs consistent with the NS1 Guidelines. Definitions and descriptions summarize text in the Guidelines.

Reference Point	Description	Required under International Exception?
Maximum Sustainable Yield (MSY) *600.310(e)(1)*	The largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological, environmental conditions and fishery technology characteristics (e.g., gear selectivity)	Yes
Optimum Yield (OY) *600.310(e)(3) and (e)(3)(iv)*	A decisional mechanism to address MSA and FMP objectives. OY definition(s) must account for the need to prevent overfishing. A long-term average amount of desired yield that accounts for economic, social, and ecological factors… an FMP must contain ACLs and AMs to achieve OY. See (e)(3)(iii) and (iv) for factors to be considered in determining OY.	Yes
Status Determination Criteria (SDC): *600.310(e)(2)*	The FMP must describe which one of two methods will be used to determine overfishing status: (1) F > MFMT or reasonable proxy or (2) Catch > OFL; in both cases exceeds the threshold for 1 year or more	Yes
Maximum Fishing Mortality Threshold (MFMT)	The level of fishing mortality (F), on an annual basis, above which overfishing is occurring	
Overfishing Limit (OFL)	Annual amount of catch that corresponds to the estimate of MFMT applied to a stock or stock complex's abundance expressed in terms of numbers or weight of fish	
Minimum Stock Size Threshold (MSST)	The level of biomass below which the stock or stock complex is considered overfished	

[7] NMFS SWFSC has been conducting ongoing research to improve estimates of post-release mortality for recreational caught sharks.

Acceptable Biological Catch (ABC) / ABC Control Rule *600.310(f)*	ABC is a level of a stock or stock complex's annual catch that accounts for the scientific uncertainty in the estimate of OFL and any other scientific uncertainty and should be based on the ABC control rule. ABC control rule means a specified approach to setting ABC for a stock or stock complex as a function of the scientific uncertainty in the estimate of OFL and any other scientific uncertainty. Councils should develop a process for receiving scientific information and advice used to establish ABC including the body that will apply the ABC control rule (calculate the ABC) and the review process. The SSC must recommend the ABC to the Council.	No
Annual Catch Limit (ACL); mechanisms for specifying ACLs *600.310(f)*	The level of annual catch of a stock or stock complex that serves as the basis for invoking AMs. ACL cannot exceed ABC but may be divided into sector-specific ACLs	No
Accountability Measures (AMs) *600.310(g)*	Management controls to prevent ACLs from being exceeded and to correct or mitigate overages of the ACL if they occur. There are two categories: inseason AMs and AMs for when the ACL is exceeded.	No
Annual Catch Target (ACT) (optional) *600.310(f)(6) & (g)(2)*	An optional AM. An amount of annual catch that is the management target of the fishery, and accounts for management uncertainty in controlling catch at or below the ACL.	Optional in all cases

HIGHLY MIGRATORY SPECIES ADVISORY SUBPANEL REPORT ON FISHERY MANAGEMENT PLAN AMENDMENT 2—ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES

The Highly Migratory Species Advisory Subpanel (HMSAS) had a long discussion about HMS Fishery Management Plan (FMP) Amendment 2 and concurs with the Highly Migratory Species Species Management Team (HMSMT) on classifying stocks and determining the primary FMP. However, on applying Magnuson Stevens Fishery Conservation and Management Act (MSA) international exception to the annual catch limits (ACL) and accountability measures (AMs), all of the management unit species (MUS) should qualify for the international exception including thresher shark and mako shark. We based this decision on the HMSMT statement on page 12 of the HMSMT Report that says "The recapture data for the common thrasher shark also provides evidence of a shared stock between U.S. and Mexico coastal waters where as mako and blue shark stocks go well beyond the national Exclusive Economic Zones (EEZs) into international waters." The HMSAS suggests that the U.S. initiate joint management of thresher shark with the Mexican Government.

On establishing reference points, the HMSAS suggest the council use caution in determining an interim reference point for North Pacific albacore until the North Pacific albacore stock assessment in 2011 and the international reference point for North Pacific albacore is determined in the future.

Considering the accountability measures, the HMSAS would like to point out that we have suggested that all of the management unit species (MUS) should qualify for the international exemption and will **not** require accountability measures or annual catch limits.

PFMC
04/11/10

Amendment 2 to the FMP for U.S. West Coast Fisheries for Highly Migratory Species: Revised National Standard 1 Guidelines (ACLs) HMSMT Report Overview

Pacific Fishery Management Council Meeting

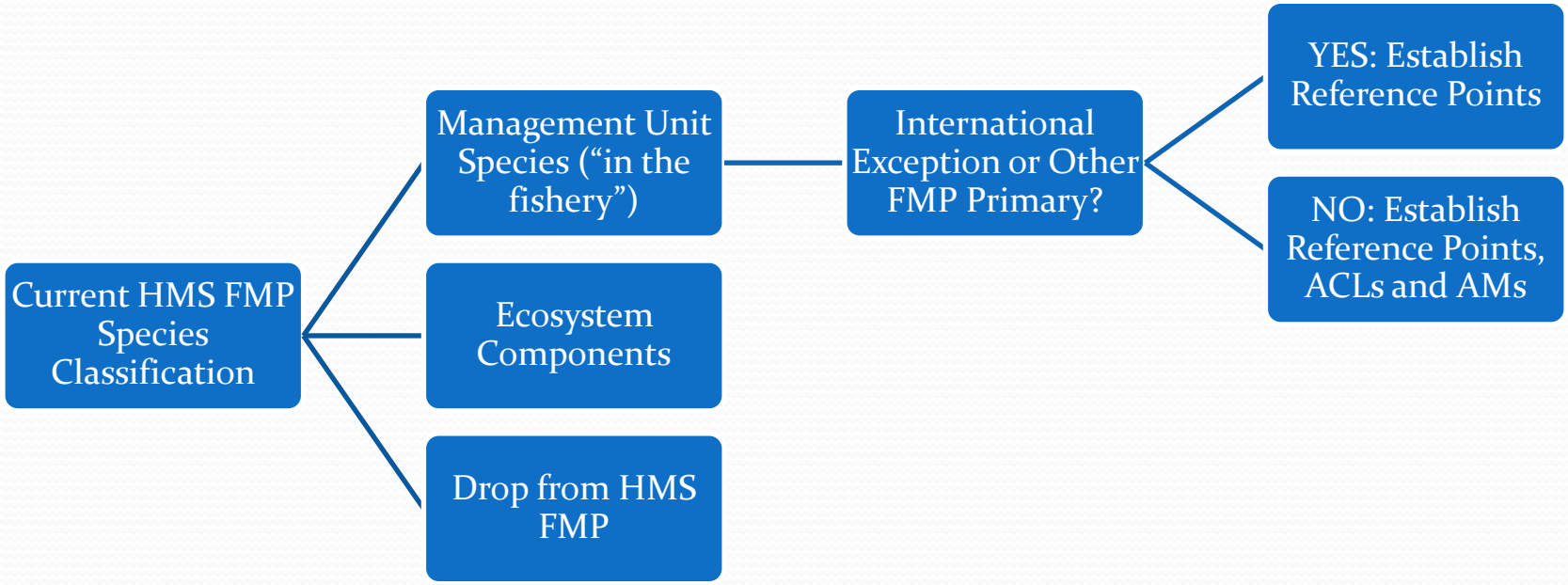
Portland, Oregon

11 April 2010

Guide to HMSMT Report Sections

1. Reclassifying HMS FMP Species to meet National Standard 1 requirements (p. 1)
2. Vulnerability Analyses to Inform Reclassification Decisions (p. 8)
3. Application of the International Exception to MUS (p. 9)
4. Determining the Primary FMP for MUS (p. 14)
5. Establishing Reference Points, ACLs and Accountability Measures (p. 16, Supplemental HMSMT Report)

Decision Flow Chart



Reclassifying HMS FMP Species

- Tables 1 (p. 4) shows commercial landings and recreational catch for selected MUS and monitored species under the current HMS FMP, including possible reclassifications
- Table 3 (p. 6) provides estimated CA DGN observer catch for the same group of species
- Proposed reclassification of MUS as ecosystem components: bigeye thresher shark, pelagic thresher shark
- Proposed reclassification of monitored species as MUS: opah

Vulnerability Analysis (1)

- Productivity and susceptibility assessments (PSA) were performed for five HMS shark management unit species, albacore, swordfish and opah
- Results are displayed in Table 4 (p. 8) and Figure 2 (p. 9)

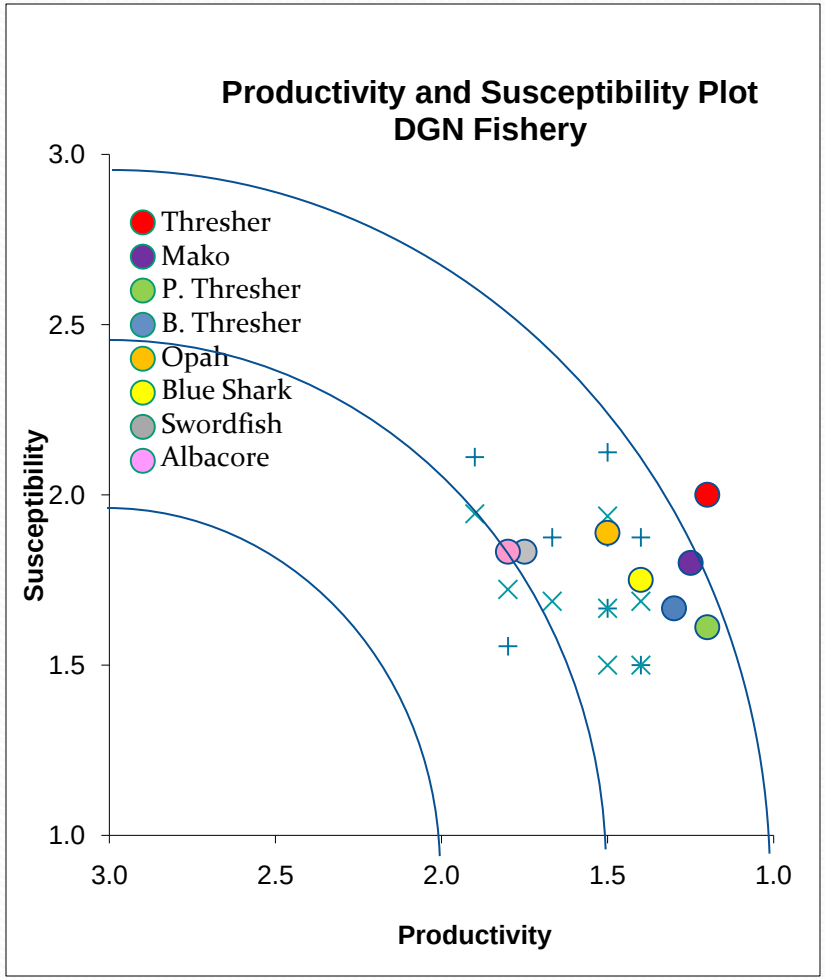
Vulnerability Analysis (2)

- Common thresher and shortfin mako shark were most vulnerable out of included species
- Albacore and swordfish were least vulnerable
- Differences in vulnerability were driven more by variation in productivity than in susceptibility

PSA Scores for HMS FMP Species (1)

PFMC DGN Fishery	Productivity		Susceptibility		Vulnerability
Species	Weighted Attribute Score	Weighted Data Quality Score	Weighted Attribute Score	Weighted Data Quality Score	
Common thresher	1.200	2.100	2.000	2.667	2.059
Shortfin mako	1.250	2.100	1.800	2.750	1.924
Pelagic thresher	1.200	2.200	1.611	3.167	1.901
Bigeye thresher	1.300	2.200	1.667	2.917	1.826
Blue shark	1.400	1.800	1.750	2.000	1.767
Opah	1.500	3.700	1.889	3.000	1.744
Swordfish	1.750	2.000	1.833	1.917	1.502
Albacore	1.800	2.200	1.833	1.750	1.461

PSA Scores for HMS FMP Species (2)



International Exception (1)

Three alternatives are included in the current version of the amendment (p. 9):

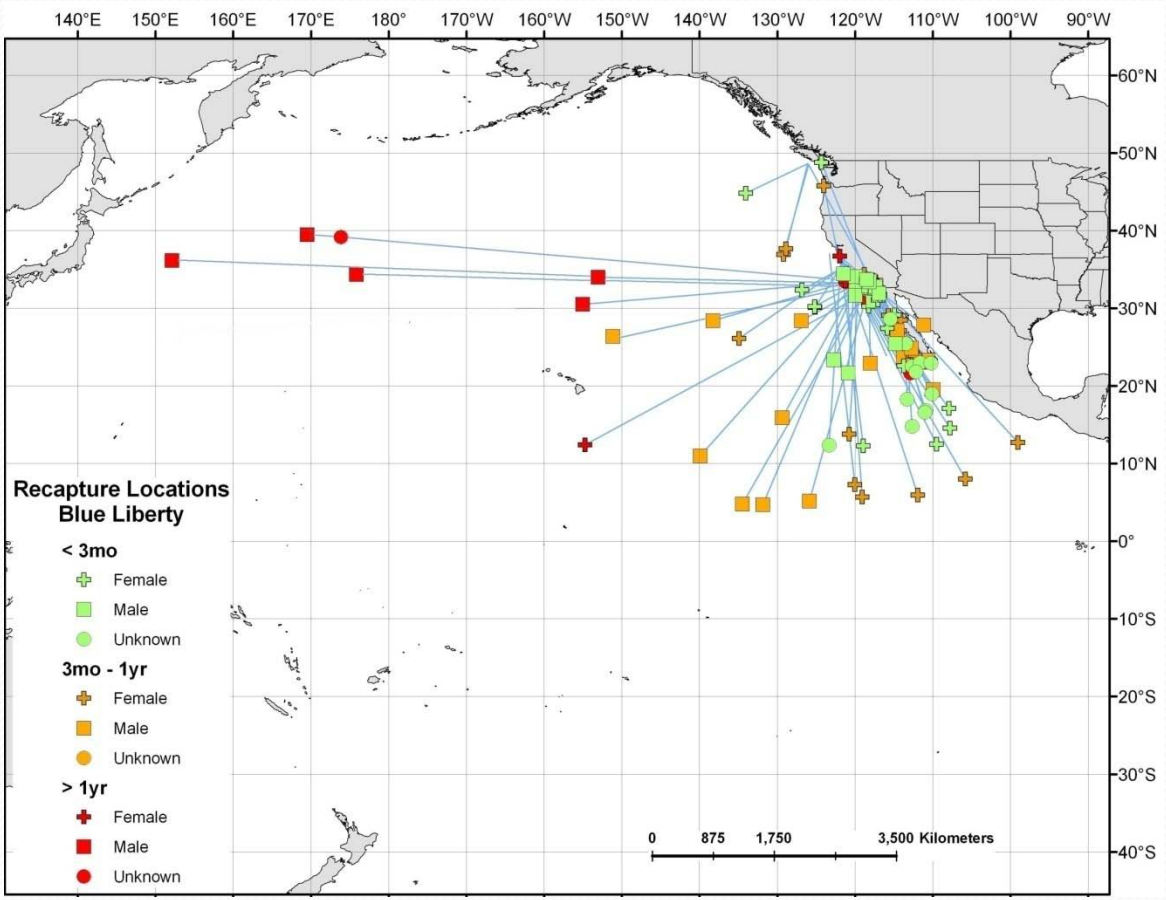
1. Apply the international exception to all HMS MUS
2. Apply the international exception to all HMS MUS except for common thresher shark and shortfin mako shark
3. Apply the international exception to all HMS MUS except for common thresher shark

International Exception (2)

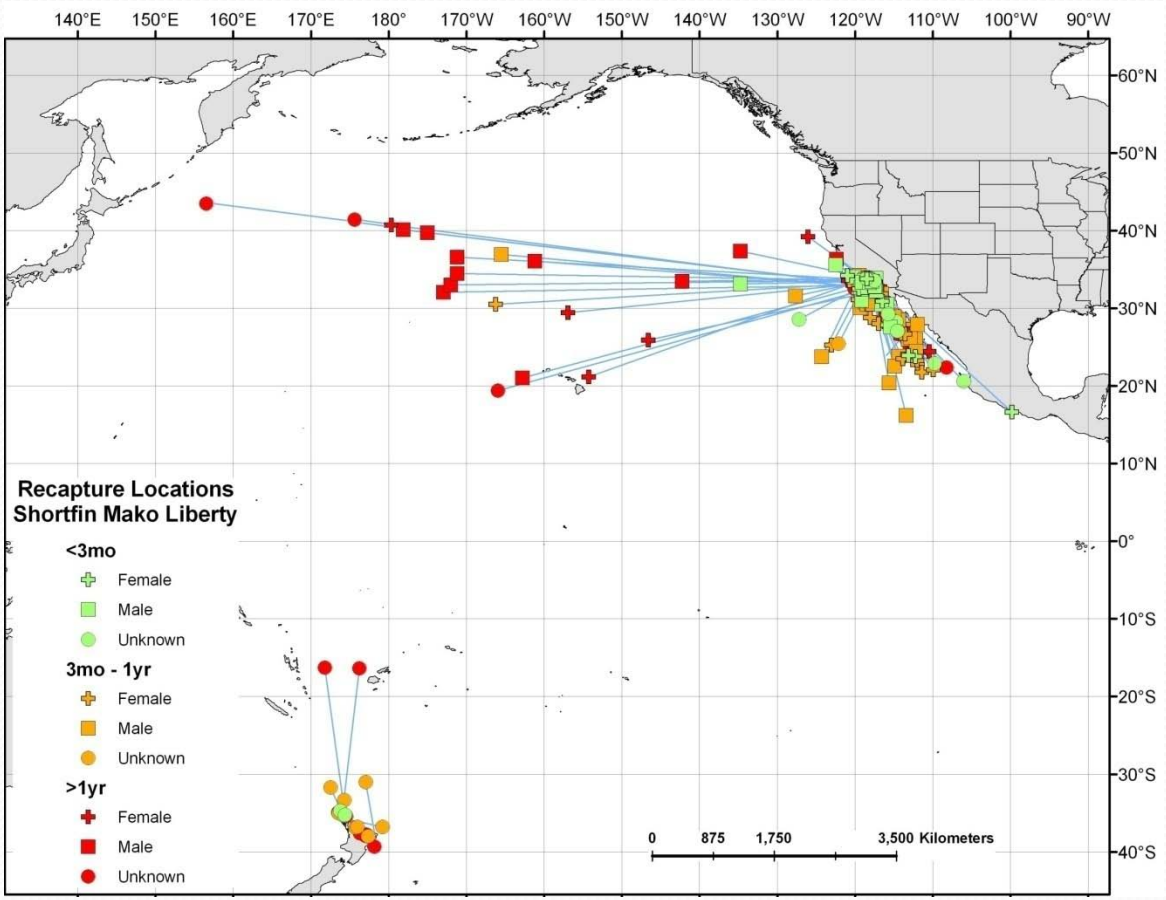
Considerations in applying the international exception:

1. Does the species' geographic distribution lie within PFMC management jurisdiction (e.g the West Coast EEZ)?
2. Is the species already subject to other management under another FMP, RFMO or state agency?

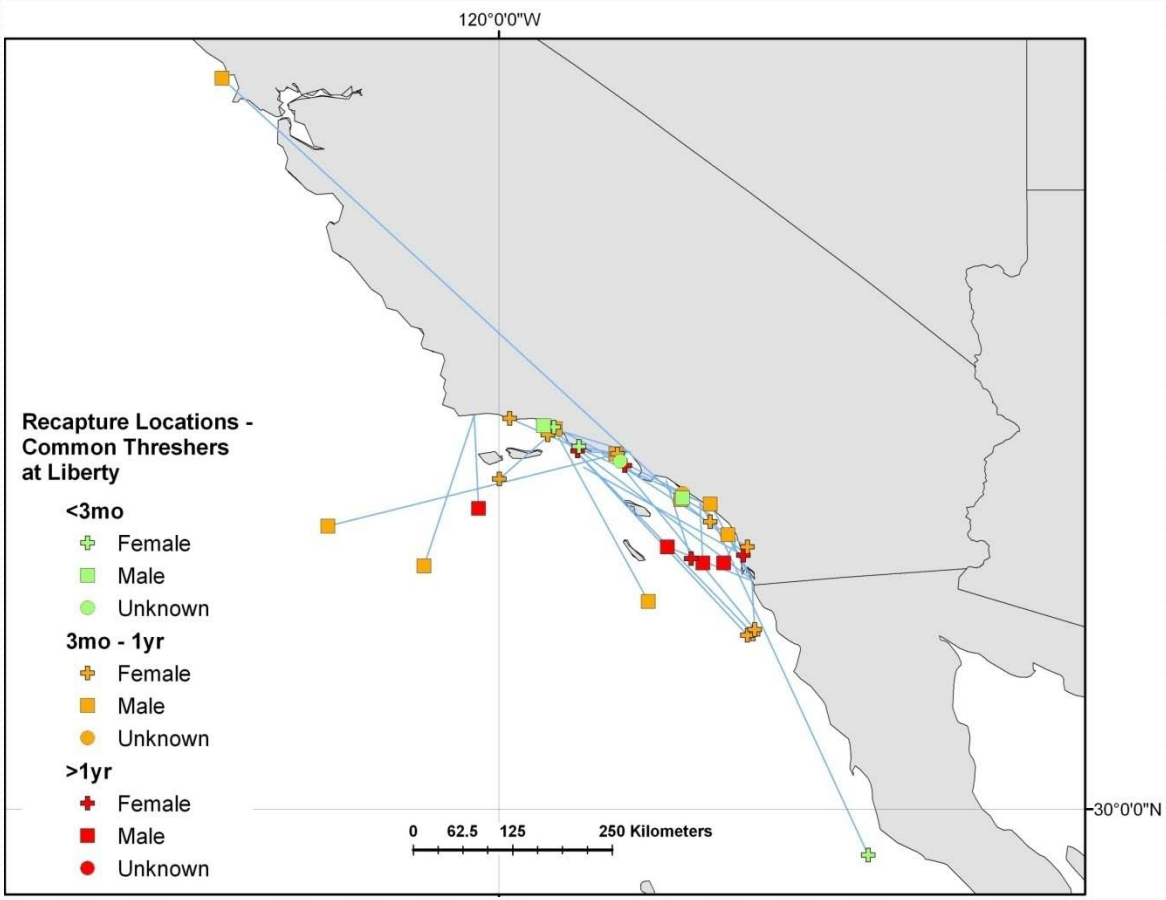
Blue shark recapture locations



Shortfin mako shark recapture locations



Common thresher shark recapture locations



IATTC Resolutions on Shark Conservation

- Resolution C-05-03 (June 2005) addresses conservation of sharks caught in association with EPO fisheries
- Resolution C-04-05 (June 2006) is a consolidated resolution on bycatch which includes shark bycatch mortality reduction measures in its scope (paragraphs 2 and 7)
- The Angtigua Convention (Article VII, paragraph (f)) provides for adoption of IATTC conservation and management measures for HMS sharks

Determining the Primary FMP

- Management unit species in the HMS FMP are all included in the WPFMC's Pelagics FMP
- Table 6. (p. 16) displays proposed primary FMP designations for current and possible additional MUS in the HMS FMP

Establishing Reference Points, ACLs and AMs

- All HMS FMP MUS require establishing reference points: MSY, OY and SDCs
- Stocks not subject to the MSA international exception must further establish ACLs and AMs
- Section 5 of the HMSMT Report (p. 16) reviews current HMS FMP reference points and considers approaches to address revised NS1 requirements

Supplemental HMSMT Report (1)

- The Supplemental HMSMT Report provides further input based on the HMSMT's meeting with the SSC's HMS Subcommittee
- The SSC requested further clarification regarding proposed alternatives to reclassify stocks in the FMP; this is provided in Section 1 of the Report.
- With the exception of bat ray, leopard sharks and Pacific bonito, all species proposed to be dropped from the HMS FMP have annual landings of less than 1 mt over the past 9 years

Supplemental HMSMT Report (2)

- A number of currently monitored species are recommended to remain in the HMS FMP as ecosystem component species (see bottom of p. 2)
- Regarding the application of the international exception to MUS, the HMSMT offered some clarification of the rationale for Alternative 3 to apply the international exception to all MUS except common thresher shark

Supplemental HMSMT Report (3)

- Section 3 of the Report provides additional clarification on determining the primary FMP for MUS in both the Pelagics FMP and the HMS FMP
- Section 4 of the Report contains additional input from the discussion with the SSC a tired approach to determining MSY or an MSY proxy for MUS depending on the quality of the available data
- Section 4 reflects discussion with the SSC's HMS Subcommittee regarding possible statistically valid methods for estimating scientific uncertainty in setting ABCs such as the P* methodology used by the Groundfish Management Team

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT ON FISHERY MANAGEMENT PLAN 2--ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES

This report supplements the Highly Migratory Species Management Team (HMSMT) Report regarding HMS Fishery Management Plan (FMP) Amendment 2 (Item G.2.b) needed to address requirements under the revised National Standard 1 Guidelines. The HMSMT met April 9, 2010 with the HMS Subcommittee of the SSC to discuss the development of management reference points, annual catch limits and accountability measures. The summary below incorporates guidance from the HMS Subcommittee of the SSC, provides some clarification on the earlier HMSMT Report and presents a series of alternatives for the Council to consider. This Supplemental Report is structured to follow the same outline established in the HMSMT Report:

1) Classification of stocks in the FMP as either management unit species (MUS) or ecosystem component (EC) species.
2) Application of the MSA international exception to annual catch limits (ACLs) and accountability measures (AMs) for Management Unit Species (MUS).
3) Determining the Primary fishery management plan (FMP) for MUS included in the Western Pacific Fishery Management Council's (WPFMC) Pelagics FMP.
4) Establishing Reference Points and Accountability Measures.

1. Classification of stocks in the FMP:

The HMS Subcommittee of the SSC requested clarification on the decision making processes leading to proposed reclassifications. Below are the alternatives the HMSMT has proposed for Council consideration and the rationale for each alternative. The alternatives regarding reclassification of stocks are not exclusive of one another; for example, the Council may decide to select one or more alternative(s) to achieve a preferred stock reclassification scheme. Regardless of what alternative(s) the Council adopts, the HMSMT cautions that the management framework of Amendment 2 should allow for changes in fishery dynamics over time. If the species composition of the catch changes significantly over time, the framework should allow for reexamination and reclassification of MUS and EC species.

Alternative 1 (comparable to "status quo"): Leave all Management Unit Species (MUS) as MUS, and reclassify all monitored species as EC species.

Rationale: The inclusion of monitored species in the plan appears to have captured, for most monitored species, the intent of the new EC species in that they are not major components of the fishery but have been captured, at least once, incidentally in the U.S. West Coast HMS Fisheries.

Alternative 2: Reclassify opah as a MUS.

Rationale: Landings are significant (exceeding 50 mt annually in recent years; Table 1 and Figure 1 of the HMSMT Report) and the market for opah has apparently grown since the development of the HMS FMP.

Alternative 3: Reclassify bigeye thresher and pelagic thresher as EC species.

Rationale: These two species were included in the HMS FMP because they may be particularly vulnerable to the effects of fishing due to their life history characteristics. Like the other three pelagic shark species covered in the HMS FMP, they are long lived, have low fecundity and are slow to mature. However, unlike the other three pelagic shark species in the plan, they are not taken in high numbers in the U.S. West Coast HMS fisheries (Table 1 and Table 3). Recent landings of each species average less than 5 mt annually, and pelagic threshers are mainly encountered during warm water El Niño years. Observer records for the swordfish drift gillnet fishery (Table 3) demonstrate that estimated blue shark catch is at least ten-fold higher than either pelagic or bigeye thresher shark catch, on average. Neither pelagic thresher nor bigeye thresher is of recreational or commercial importance for U.S. West Coast fisheries; in contrast, shortfin mako and common thresher sharks are recreationally and commercially important species. In addition, both the pelagic and bigeye thresher sharks are taken in greater numbers by fisheries operating outside the U.S. West Coast EEZ, and both are managed under the WPFMC Pelagics Plan.

Alternative 4: Drop 22 monitored species from the HMS FMP, as shown in Tables 1 and 3 of the HMSMT Report, and reclassify all other monitored species as EC species, with the exception of opah if it is reclassified as a MUS under Alternative 2 above.

Rationale: The HMSMT examined West Coast landings (Table 1) and bycatch in the drift gillnet fishery (Table 3) and concluded that the Council should consider dropping several monitored species from the HMS FMP. All species proposed to be dropped from the FMP with the exception of bat ray and leopard shark have average annual landings of less that 1 mt over the past 9 years. Upon closer examination, the relatively higher level of reported bat ray landings was taken during CPS targeted trips.

Leopard sharks are benthic dwelling, coastal sharks; although the reported annual recreational catch is relatively high, it is unlikely that leopard sharks are actually taken while targeting HMS. Furthermore, leopard sharks are included in the PFMC Groundfish Management Plan.

Of several species with landings less than 1 mt annually, the HMSMT suggests that the Council consider classifying some as EC species rather than dropping them from the FMP because they are encountered in relatively high numbers as bycatch in the drift gillnet fishery (Table 3), or in the pelagic longline fishery (data not shown due to confidentiality reasons). These include pelagic stingray, wahoo, hammerhead sharks, oilfish, Pacific pomfret, black skipjack, bullet mackerel, common mola, and Pacific bonito. For all others listed in Table 1 and Table 3, the HMSMT considers the landings or incidental take insignificant; many are also covered under another management plan.

2. Application of the International Exception to Management Unit Species:

The HMS Subcommittee of the SSC agreed that none of the current MUS are restricted to the U.S. West Coast EEZ and all are susceptible to international fisheries. However, as the HMSMT Report (Item G.2.b) points out, a few criteria must be met in order to be a candidate for International Exception. The majority of the current HMS MUS (particularly the tunas and

billfishes) are actively managed and regularly assessed under the IATTC and WCPFC. The HMSMT report also references resolutions by the two RFMOs regarding pelagic sharks and finfish bycatch (Table 5). Therefore all MUS may be considered eligible for application of the International Exception. At their November meeting, the Council asked for information on the first two alternatives below, and the HMSMT has since decided to propose the third based on discussion at their interim meeting in February 2010.

Alternative 1: Apply the International Exception to all MUS (including opah if selected under Section 1, Alternative 2 above).

Rationale: See HMSMT Report.

Alternative 2: Apply the International Exception to all MUS except shortfin mako and common thresher shark.

Rationale: While subject to capture in international fisheries, and covered under IATTC and WCPFC resolutions on sharks and bycatch, these two species were considered of special regional significance at the time the FMP was developed because of their vulnerability and importance to West Coast commercial and recreational fisheries. See HMSMT Report for further discussion.

Alternative 3: Apply the International Exception to all MUS except common thresher shark.

Rationale: The best available science indicates that the range of the common thresher shark taken in the U.S. West Coast fisheries is likely limited to the U.S. EEZ and the Mexico EEZ off the northern portion of Baja California, with very limited movement beyond to the north and west. Collaborative research among SWFSC scientists, Scripps University and CICESE, Ensenada Mexico demonstrates a significant artisanal fishery for common thresher sharks off northern Baja, yet the fractional catch by Mexico fisheries of the common thresher shark stock is estimated to have been either stable or in decline since the development of the HMS FMP due to recent regulatory changes affecting shark fisheries. Accurate landings estimates for the Mexico fleet are not available, yet the stock is relatively confined and U.S. West Coast landings likely comprise a greater proportion of the total stockwide catch than for any of the other pelagic shark MUS.

3. Determining the Primary Fishery Management Plan (FMP) for MUS:

A proposed division of responsibility between the WPFMC and the PFMC is described in the HMSMT Report (see Table 6 in Item G.2.b). Current stock assessments are being conducted with an effort to incorporate the best available information on the extent of the stock being studied; however, in many cases the stock assessments are conducted based on stock structure defined by jurisdictional boundaries. The HMSMT would like to note that stock structure of HMS is an active area of research. There is the potential that future modeling efforts may not be limited to the stocks identified in the current FMP or in the HMSMT Report. Greater stock partitioning or lumping may require the WPFMC and PFMC to reconsider designation of the primary FMP. The HMSMT recommends that the management framework in Amendment 2 therefore allow for renegotiation of the primary FMP designations as necessary through consultation with the WPFMC. For this reason the Council may prefer to not to list designation

of a Primary FMP in the Amendment 2 language in light of the potential for future stock restructuring.

4. Establishing Reference Points and Accountability Measures

The HMSMT and HMS Subcommittee of the SSC spent most of their joint meeting discussing how to establish management reference points (MSY, OY, and Status Determination Criteria including OFL) for all MUS and how to establish ABC, ACL and Accountability Measures for any stocks that do not fall under the International Exception.

A framework is proposed based on a tiered system depending upon whether or not a stock assessment with MSY based estimates is available and whether or not a time series of stockwide catch is available. The Council responsible for the primary FMP would be responsible for establishing the management reference points and SDCs.

Determining MSY for HMS FMP Management Unit Species:

1) If a recent stock assessment with MSY based estimates has been conducted, the HMSMT would summarize the results of the stock assessment and estimated reference points and present the summary to the SSC. If the SSC considered the assessment results to be robust, the MSY would be recommended to the Council for management.
2) If the stock has not been recently or ever assessed, the HMSMT would compile the best available data on stockwide catch and use some part of the time series to estimate a sustainable catch limit. Catch-based models that incorporate some stock productivity parameters and methods to account for uncertainty, such as DCAC or DB-SRA may prove useful for estimating a sustainable yield. Alternatively, if justified, catch levels from select years when the stock was believed to be fished sustainably could be used to come up with a proxy MSY.
3) If a time series of stockwide catch is not available, then it may be necessary to use a time series of only regional (U.S. West Coast) catch and apply a catch-based estimation model (as above) or select levels of sustainable catch to serve as a proxy local MSY.

While the HMSMT may identify a reasonable MSY or MSY proxy, the SSC would ultimately need to endorse the reference point and recommend it to the Council for use in management under Amendment 2. When an MSY proxy is established on a local level, the target yield can be considered equivalent to a regional overfishing limit (OFL), a new reference point established under the revised NS1 Guidelines.

Setting OY (less than or equal to OY):
Currently the FMP establishes a default control rule that includes establishing OY at some level equal to or less than MSY. The HMSMT suggests that the Council include a flexible framework for setting OYs under Amendment 2 in order to address life history concerns, management goals and socioeconomic considerations on a species by species basis.

The SSC questioned the decision to set OY equal to 0.75 MSY for pelagic sharks, bluefin tuna, and striped marlin under the current FMP and asked whether the HMSMT felt it was appropriate to establish a consistent precautionary OY for the same species under Amendment 2. For clarification, the decision to set OY to something lower than MSY under the HMS FMP included

consideration of the vulnerable life history characteristics of the pelagic sharks, as well as socio-economic considerations and management goals at the time of the FMP development. OY under the original NS1 Guidelines could be reduced from MSY by a "catch all" precautionary buffer to set a management reference point at a lower level due to scientific uncertainly, socioeconomic considerations, management objectives and/or vulnerability.

Under the HMS FMP, for example, a fishery to capture live juvenile bluefin tuna in order to rear them in pens off Baja California had just been established and appeared to be growing at a rapid rate; the impact of the nascent fishery on the bluefin population and the fact that bluefin had been subject to overfishing in other oceans demonstrating some stock vulnerability may have been the basis for setting a more precautionary OY for that species. For striped marlin, OY was likely set at 0.75MSY to attain lower levels of fishing mortality on that stock and to sustain the stock at higher levels due to its importance to the local recreational fisheries. While the establishment of an OY lower than MSY may still be advisable for several MUS, a decision to revise the level of the precautionary OY or to change the species to which a precautionary OY would apply can be considered as part of the process in establishing management reference points under Amendment 2.

Status Determination Criteria:

The HMSMT Report (Item G.2.b) includes the current default formulas for the maximum fishing mortality threshold (MFMT) and minimum stock size threshold (MSST). The HMSMT suggests the Council consider keeping the current control rules for management under Amendment 2.

Establishing OFL, ABC and ACL for HMS FMP Management Unit Species not subject to International Exception:

For all MUS for which the PFMC HMS FMP is the primary FMP, MSY or a MSY proxy will have to be established under a framework as described above. Once the MSY has been established, then the MSY should be adjusted to the local level in order to come up with an OFL to apply to the PFMC HMS fisheries. Under the new NS1 Guidelines, an ABC must also be established at some value below OFL to account for scientific uncertainty associated with estimating OFL. The Groundfish Management Team has come up with a statistically validated method for estimating scientific uncertainty associated with stock assessments on groundfish that can be used in combination with a P* approach. The Council may choose to use a similar approach for HMS in order to incorporate risk in the process of selecting the ACL. The ACL, ultimately used for management of the local catch, may be equal to or lower than the ABC. A reduction in ACL from ABC is meant to account for socioeconomic considerations and management goals, if applicable.

Accountability Measures for Stocks Subject to ACLs:

The HMSMT Report (Item G.2.b) describes the current FMP framework for establishing management measures if needed to respond to situations when the ACL may be exceeded. The HMSMT believes the biennial process established under the FMP satisfies the requirements under the revised NS1 Guidelines.

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON FISHERY MANAGEMENT PLAN AMENDMENT 2 – ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES

The Highly Migratory Species subcommittee of the Scientific and Statistical Committee (SSC) met with the Highly Migratory Species Management Team (HMSMT) to review and discuss Agenda Item G.2 (Fishery Management Plan Amendment 2 – Annual Catch Limits and Accountability Measures). The full SSC received a report on the subcommittee meeting and further discussed this agenda item with Drs. Stephen Stohs and Suzanne Kohin of the HMSMT. The discussion focused on the material presented in the HMSMT Report (Agenda Item G.2.b); the topics that were the focus of the discussion are indicated in bold.

Stock Classifications as Management Unit Species or Ecosystem Component Species

The HMSMT reviewed the process followed to classify species as Management Unit Species (MUS) or Ecosystem Component (EC) Species. There was a discussion of the criteria used to assign species to the EC category as opposed to being dropped from the HMS management plan. The SSC recommends that these criteria be more explicitly stated in the final decision document and the specific reasons for dropping a species from the HMS management plan be identified (e.g., the species is better covered in another management plan such as the CPS management plan). The SSC endorses the process used by the HMSMT and the stock classifications they have proposed.

Establishing Reference Points for Unassessed Stocks or Stocks Subject to the International Exception

Management reference points for stocks being managed by regional fishery management organizations (RFMOs) were reviewed. A concern was expressed that in the current HMS FMP, sharks are grouped with bluefin tuna and striped marlin based on their vulnerability. This is not reasonable given current understanding of these stocks as shark species are generally thought to be more vulnerable. The SSC recommends that in the FMP amendment, the differences in vulnerability between these two groups be explicitly recognized and considered when establishing Acceptable Biological Catches (ABCs) for these stocks.

There was a general discussion on how the SSC would review and evaluate stock assessment documents produced by other RFMOs and their recommendations for management reference points for HMS stocks falling under the International Exception. It is not clear how the Council and its SSC will participate in these processes and what level of SSC review and interaction would be possible. The SSC requests that the HMSMT summarize the management reference points, and the basis for them, for each of the HMS stocks under the International Exception. The SSC can then evaluate whether these reference points meet the standards specified by the MSA and make recommendations to the Council. The SSC supports the concept of frameworking the control rules but not including hard numbers in the amendment.

The SSC notes that for species with significant movement outside of the USA exclusive economic zone (EEZ) coupled with coverage of the species by an RFMO (e.g., IATTC or WCPFC), the International Exception may be appropriate. However, meeting the criteria for the International Exception does not necessarily mean that the species is actively assessed and managed. For example, conventional and satellite tagging data indicate that shortfin mako sharks move outside of the EEZ regularly. Although technically managed by IATTC, shortfin mako are not assessed on a regular basis due to data limitations and workload issues. The SSC suggests that the nomination of candidate species for the International Exception should consider whether the species is assessed and actively managed by an RFMO.

Methodology for Establishing Reference Points

The SSC notes that it is not a straightforward process to compute Overfishing Limits (OFLs) for many HMS stocks. For example, there will be considerable uncertainty regarding the historical catches for some of the HMS stocks (particularly the shark species) which are found outside of the US EEZ. Moreover, catches of some HMS MUS stocks are under-reported owing to discarding. The SSC recommends that the impact of discarding be taken into account when computing OFLs and assessing whether overfishing is occurring. Recommendations for OFLs for data-poor HMS species must be based on the best available science. The HMSMT should therefore consider all data sources, including catches and catch per unit of effort (CPUE) series, when estimating OFLs. A clear justification for the choices made when computing OFLs must accompany the recommendations to allow the SSC to review OFLs. For example, the OFL for an HMS stock could be based on the highest catch recorded (or an average of the highest catches) if there is evidence that a stock has only been lightly fished historically.

ABCs and Annual Catch Limits (ACLs) will need to be specified for any MUS stocks for which the International Exception does not apply. ABCs are more difficult to estimate than OFLs in principle but ad hoc rules and/or depletion corrected average catch (DCAC) and P* approaches may be possible. The ACL must be less than or equal to the ABC, and the ABC needs to be less than the OFL to account for scientific uncertainty. ABCs can be calculated from OFLs either by multiplying the OFL by a scalar (e.g., 0.5 for the most data-poor stocks) or using a P* approach. The latter could be applied if the OFL is based on the DCAC or DB-SRA methods as these methods lead to probability distributions for the OFL.

More specifically for unassessed, data-poor MUS stocks, the SSC recommends the following hierarchical framework for OFL and ABC (when needed) determination.

- If stock-wide catches are available, use a DCAC-type approach to estimate stock-wide OFLs and ABCs then proportionally reduce these to determine local (i.e. within the EEZ) reference points.
- If only local catch time series are available, use local DCAC estimation or average catch over a designated set of years with evaluation of CPUE or other information to inform the years selected. For this case, in particular, it will be important to clearly identify the assumptions supporting local estimation.

Primary Fishery Management Plan Designation

The HMSMT reviewed the criteria used for preliminary designation of the "primary FMP." For each species/stock in the HMS FMP, either the PFMC HMS FMP or the WPFMC Pelagics FMP would be designated as the primary FMP. The criteria used are partly scientific (e.g., geographic range and stock structure analysis) and partly administrative (e.g., the treaty-based geographical bounds for IATTC and WCPFC management and the current NMFS species assignments among its Science Centers and Regions). With regard to the scientific criteria, it should be recognized that stock structure is not well established for many highly migratory species in the Pacific Ocean. In particular, the species that have yet to be fully assessed (e.g. swordfish) or have been assessed for the first time only recently (e.g. striped marlin) have stock assessments that are based on preliminary stock structure hypotheses. The "best" stock structure hypothesis may change in subsequent assessments. The SSC suggests that whatever agreement is reached regarding the primary FMP among the PFMC, WPFMC, and NMFS be frameworked in a manner that can be easily modified should future work indicate a different stock structure is likely.

PFMC
04/11/10

CONSIDERATION OF EFFORT LIMITATION IN THE ALBACORE TUNA FISHERY

At the November 2009 meeting the Council heard a presentation from Drs. Mike Laurs and Joe Powers on their white paper *Possible Management Options for the U.S. West Coast Albacore Fishery*. In June 2009 and again in November the Highly Migratory Species Management Team (HMSMT) and Highly Migratory Species Advisory Subpanel (HMSAS) provided comments on the draft paper. Based in part on this input the authors revised the paper and submitted a final version to NMFS in early 2010 (Attachment 1). According to its authors, "the intent of this 'White Paper' is to provide the PFMC with information that may assist it in deliberations regarding the initiation of a framework process to maintain or limit fishing effort by the West Coast albacore fishery." The paper describes three categories of measures to limit fishing effort: input/output controls, limited access (e.g., license limitation or "limited entry") programs, and limited access privilege programs (now often referred to as catch share programs).

At the November meeting the Council directed the HMSMT to provide additional comments on the white paper and gather information that would support initiating formal consideration of fishing effort limitation measures at this Council meeting. Such a decision would be the first step in the Council's three meeting process described in Council Operating Procedure 11 for Plan Amendment Cycles. (An effort limitation program would likely require an FMP amendment.) In addition, the Council announced that they also would be considering changing the current HMS control date of March 9, 2000, at this Council meeting, which will occur under this agenda item.

Attachment 2 contains an analysis of 2004-2008 Pacific Fishery Information Network (PacFIN) vessel summary files to characterize participation in the west coast albacore pole/troll fishery. This information is intended to inform the discussion of possible effort limitation measures for the fishery.

The concept of a "control date" was developed by National Marine Fisheries Service (NMFS) and the councils; establishing a control date is not required by the Magnuson-Stevens Act (MSA) or regulations. Past guidance from National Oceanic and Atmospheric Administration (NOAA) General Counsel emphasizes the following:

- Announcement of a control date is considered an advance notice of proposed rulemaking (ANPR). This format links the control date announcement with subsequent rulemaking.
- The ANPR control date announcement should be very general. It should simply state that the Council is considering a limited access system for a particular fishery and anyone entering the fishery after the specified date is not assured they will be given access to the fishery if the system is adopted.
- Once a council announces a control date, the council should proceed quickly with development of the limited access system. If there is inaction or lengthy delay the old control date should be rescinded and a new date be announced.
- Announcing limited access criteria in the ANPR and subsequently changing the criteria could be problematic, especially if stricter criteria are subsequently adopted. This could be perceived as unfair to someone who participated in the fishery based on the announced criteria but subsequently did not qualify.

Control dates are intended to put the public on notice that if they join a fishery after a specified date they might be excluded because a limited access program is under consideration. The objective is to discourage speculative entry while such a program is being developed. Although there is no hard-and-fast rule about how recent a control date needs to be when initiating a limited access program, it is expected that when a date is announced a council will "proceed quickly" in developing the program. However, any date can be chosen as the control date, as long as sufficient rationale is provided. Furthermore, whatever the control date, it does not have to be used in any ultimate formula that may be established to determine who could qualify for a limited access permit or other access privileges. Whatever is decided, it is important to establish a good written record of the rationale for these management decisions.

Per Council guidance, the HMSMT Report contains additional information relative to a Council decision to proceed with effort limitation measures for the west coast pole/troll albacore fishery.

Council Task:

1. **Determine whether to begin considering measures to limit fishing effort in the west coast albacore pole/troll fishery based on information provided in the white paper and reports from the HMSMT and HMSAS. If proceeding, the Council should provide further guidance to the HMSMT and HMSAS on the parameters of such measures.**
2. **If proceeding with effort limitation measures, and specifically a limited access (limited entry) or limited access privilege program, consider changing the current March 9, 2000, control date.**

Reference Materials:

1. Agenda Item G.3.a Attachment 1: North Pacific Albacore 'White Paper'; Possible Management Options for the U.S. West Coast Albacore Fishery.
2. Agenda Item G.3.a Attachment 2: Information on Participation in the West Coast Pole (Baitboat) and Troll Albacore Surface Fishery Relative to Consideration of Fishing Effort Limitation.
3. Agenda Item G.3.b HMSMT Report.
4. Agenda Item G.3.c Public Comment: Hank Bryson, John Harder.

Agenda Order:

a. Agenda Item Overview **Kit Dahl**
b. Reports and Comments of Management Entities and Advisory Bodies
c. Public Comment
d. **Council Action**: Consider Implementing Effort Limitation Measures and a Control Date in the Albacore Tuna Fishery

PFMC
03/24/2010

Agenda Item G.3.a
Attachment 1
April 2010

North Pacific Albacore 'White Paper'
Possible Management Options for the U.S. West Coast Albacore Fishery[1]

Prepared by

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Prepared for

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North Pacific Albacore White Paper

1. Purpose

The purpose of this 'White Paper' is to provide the Pacific Fishery Management Council (PFMC) with information that may assist it in initiating deliberations for initiating a framework process to maintain or limit fishing effort by the West Coast albacore fishery. The document includes a summary of management measures that are in place for the fishery and an analysis of management options that could be considered for maintaining or reducing effort in the fishery. Information is also presented regarding the albacore resource and the fisheries operating on it. An outcome of the analysis of management options is that it later may serve as the basis of the National Environmental Policy Act (NEPA) process and thus serve as the building blocks that could be formulated into a range of rational management options for the U.S. West Coast albacore fishery.

2. Background Information

The North Pacific albacore resource is distributed in ocean areas that encompass multiple zones of national jurisdiction, as well as the high seas, and are exploited by fisheries of many Nations. As such, international agreement is necessary to conserve North Pacific albacore tuna stocks and to ensure the viability of the fisheries. Article 64 of the United Nations Law of the Sea Convention mandates States to cooperate directly, or through appropriate international organizations, to ensure the conservation of tunas. International management of the North Pacific albacore tuna resource and fisheries operating on, it are shared under the auspices of the Inter American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC). The Commissions formulate overarching resolutions based on recommendations from scientific committees or staff. Member states negotiate agreements on management mechanisms and once agreed upon, the actual implementation is left to the individual member and cooperating countries.

The PFMC has the lead to adopt management actions regarding the U.S. West Coast albacore fishery. Stock assessments indicate that presently the North Pacific albacore tuna resource is not overexploited. However, the assessment concludes that fishing effort may be above levels that are not sustainable in the long term. The status of the stocks and evidence supporting the need to cap fishing effort on the North Pacific resource are presented in Section 7 of this document.

In 2005 the IATTC and the WCPFC adopted resolutions, which have been continued through the present time, for conservation of North Pacific albacore based on concerns that recent fishing effort may be above levels that are sustainable in the long term. Resolutions adopted by both Commissions call upon their members and cooperating parties to take necessary measures to ensure that the level of fishing effort by their vessels fishing for North Pacific albacore is not increased beyond current levels, and to report all catches of North Pacific albacore to the Commissions

at 6-month intervals. The WCPFC resolution requires that fishing effort be reported by gear type annually *"… in terms of the most relevant measures for a given gear type, including at a minimum for all gear types, the number of vessel-days fished."*

In response to the IATTC and WCPFC resolutions, the PFMC tasked its Highly Migratory Species Management Team (HMSMT) to examine recent levels of U.S. albacore fishing effort on North Pacific albacore in order to establish the current effort level and enable decision makers to meet the requirements of the IATTC and WCPFC resolutions. Scientists of NOAA Fisheries' Southwest Fisheries Science Center (SWFSC), working in cooperation with the Council's HMSMT and HMS Advisory Subpanel (HMSAS), compiled fishery statistics and analyzed trends in North Pacific albacore catch and effort for U.S. commercial fisheries. The analyses included information for the West Coast troll/bait fishery and the Hawaii-based longline fishery, which catches albacore incidentally. The findings of the analyses, which are discussed in Section 6.1.2 of this document, are contained in a report issued in May 2007, *Characterization of Recent U.S. North Pacific Albacore Commercial Fishing Effort.*

In summary, the intent of this 'White Paper' is to provide the PFMC with information that may assist it in deliberations regarding the initiation of a framework process to maintain or limit fishing effort by the West Coast albacore fishery.

3. Management Measures Presently in Place on the U.S. West Coast Fishery

The U.S. West Coast albacore fishery, which is one of the few remaining open access fisheries on the West Coast, is managed under the PFMC HMS Fishery Management Plan (HMS FMP). The management measures presently in place on the fishery, which apply to vessels fishing for albacore in the EEZ off the West Coast as well as when fishing on the high seas and landing their catch in West Coast states, include the following:

- A Pacific HMS fishing permit with an endorsement for a specific gear and other accompanying provisions is required by all commercial and recreational charter fishing vessels fishing for albacore. Permits are issued to the owner of a specific vessel for a 2-year term and are renewable.
- All Pacific HMS permit holders must maintain and submit to NMFS a daily logbook of catch and effort and catch disposition.
- The HMS FMP prohibits all pelagic longline fishing within the West Coast EEZ as well as shallow-set longline fishing in the adjacent high seas areas.
- All U.S. fishing vessels operating in HMS fisheries may be required to carry a NMFS certified observer on board to collect scientific data when directed to do so by the NMFS Regional Administrator.
- A control date of March 9. 2000 has been established, which may or may not be considered final.
- A U.S./Canada Albacore Tuna Treaty that allows, with conditions, fishing vessels of both countries to fish for North Pacific albacore in the respective EEZ waters

outside 12 miles of the other county and to access certain ports to obtain supplies and services and to land their catch (see Section 3.1.1 of this document).

- The recreational fishery is managed by daily bag limits of 10 albacore per angler south and 25 albacore per angler north of Point Conception, CA.
- The State of California has a 7 pound minimum size limit for albacore on the books, which was decreased from 9 pounds in 1957. The size limit was apparently put in place for processing efficiency.

3.1 U.S. /Canada Albacore Tuna Treaty

The U.S./Canada Albacore Treaty was initially put into effect in 1981, amended in 2002, and codified by law in April 2004. U.S. and Canadian delegations met in 2008 to re-negotiate future and specific aspects of the Treaty

3.1.1 Provisions of the Treaty

The Treaty allows, with conditions, fishing vessels of both countries to fish for North Pacific albacore in the respective EEZ waters outside 12 miles of the other county and to access certain ports to obtain supplies and services and to land their catch. U. S. vessels have access to British Columbia ports in: Coal Harbor, Port Hardy, Prince Rupert, Victoria, Vancouver, and Ucluelet. Canadian vessels have access to ports in: Bellingham and Westport, Washington; Astoria, Newport, and Coos Bay, Oregon; and Eureka, California. The Treaty also establishes regulations regarding vessel marking, record keeping, and reporting requirements when operating in each other country's waters; and calls for exchange of fisheries data between the governments of the two Nations. In addition, the Treaty provides for agreed fishing limits on reciprocal fishing access. Negotiations conducted in 2008 for a new 3-year fishing regime included limiting the number of Canadian vessels to 110, none of which can be pole-and-line vessels, and the number of U.S. vessels fishing in Canada to remain within historical levels; defining the vessel access period as starting June 15 and ending October 31; and that either country may terminate the new regime in the event that international or domestic management measures are adopted.

3.1.2 Amount of U.S. and Canadian Albacore Caught in Each Other's EEZ

The percentage of U.S. catch caught in Canada's EEZ during 2004 – 2008 ranged from one to four percent. However, in earlier years when the availability of albacore was high in 'northern' waters and there was a much larger U.S. pole-and-line albacore fleet, the U.S. catch in the Canadian EEZ was considerably more, up to 30 percent and higher. The distribution of U.S. albacore catch and effort in 2008 is shown in Figure 1 and the monthly use by U.S. and Canadian vessels in each other's EEZ is given in Table 1. The annual total of Canadian albacore catch and total amount caught in the U.S. EEZ, and the values of the catch in Canadian dollars are given in Figures 2a and 2b, respectively. There has been a large increase in the Canadian total catch of albacore, as well as the amount caught in U.S. EEZ waters beginning in the late 1990s. During 2003 to 2007, Canadian catch made in the U.S. EEZ ranged from 1,725 to 3,891 mt. or approximately 60 to 80 percent of the total Canadian annual catch. The value in Canadian dollars during

this period ranged from approximately C$3.65 million to C$13.65 million. In addition to the apparent benefit to U.S. coastal processors of albacore landed by Canadian fishermen in west coast ports, the Canadian stopovers may also benefit local communities through expenditures for fuel and supplies while they are in port. A Canadian government survey that sampled a subsection of their fishermen that fished in the U.S. EEZ during 2002 – 2007 estimated that approximately $700K to $800K in expenditures were made annually by Canadian fishermen while in U.S. ports. No information was available on the amounts of expenditures by U.S. fishers during stopovers in Canadian ports.

4. Potential Management Options For Consideration

Fisheries management options are broadly classified as 1) output controls which control the catch through, for example, Total Allowable Catch (TAC); 2) input controls which regulate the extent and kind of effort that is prosecuted; examples are gear restrictions, minimum sizes and area restrictions; and 3) the access programs in which particular entities are allowed to fish. If fishing mortality needs to be limited, then ultimately some form of input and/or output controls will be needed in conjunction with access decisions on who can fish. The discussion (below) of potential management options for the U.S. West Coast albacore fishery centers on decisions about access programs: Limited Access Privilege Programs (LAPP); limited entry; and open access. Then options for input/output controls are discussed in the context of access.

4.1 Open Access

Most U.S. fisheries were managed under open access until the end of the 20th century. Under this system of management, lucrative fisheries have often become over-capitalized resulting in excess capacity and over-exploitation of the resource. At some point to halt the over-exploitation, an authority often would establish input and/or output controls on the fishery, e.g., vessel size, limit number of days fished, catch limits, restrictions to fishing effort, limit the characteristics (normally size or breeding status) of individual fish that may be taken legally or other similar options. In many cases input controls by themselves eventually have proved to be ineffective due to the development of technological changes to overcome them. Conversely output controls are often not effective due to poor governance structures, imperfect implementation and enforcement and by choosing too risky TAC levels. However, there are many cases where TACs combined with input controls have been effective. For example TACs, country-specific allocations, a minimum size and seasonal closures of small-fish areas were used to recover the overexploited swordfish stock in the North Atlantic.

4.1.1 Possible Input and/or Output Controls Applied to an Open Access U.S. West Coast Albacore Fishery

Some possible specific input and/or output controls for consideration for application to the U.S. West Coast albacore fishery and the pros and cons of each are summarized in Table 2. The implications of this approach are:

- The last open access fishery on the West Coast would not be closed to new entrants.

- If management action is required, many fishers and others in the albacore fishing industry, including some recreational albacore fishing charter vessels, favor some sort of unspecified input and/or output controls to other management options that limit their participation.

There are a number of disadvantages to using input and/or output options to limit or maintain fishing effort in the U.S. West Coast albacore fishery, including:

- The fishery is generally not a good candidate for using many of the usual types of input and/or output controls that have been applied to open access fisheries (see Table 2).
- Catch limits, trip limits, or reducing the amount of gear that may be fished would at least initially result in a reduction of effective fishing effort, but would create serious disruptions to the fishery resulting in severe economic inefficiencies.
- Limiting the amount of gear fished, e.g., the number of jigs that could be trolled or poles that could be fished likely could not be enforced unless there is 100 percent observer coverage.
- Evaluating the effectiveness of limiting the amount of gear that could be fished would be problematical since fishers normally only 'pull' and land albacore caught on short lines when fishing activity and catches are very high.
- Establishing a total allowable catch (TAC) is strongly opposed by many U.S. fishers and fish buyers, but supported by a few fishers.
- The highly migratory nature of the species and the high inter-and intra-annual variability in its seasonal distribution and availability in waters off the west coast of North America would generally contribute to reducing the effectiveness of utilizing input or output controls.
- Closed areas would be very tricky to establish and almost impossible to enforce due to the large swings in inter- and intra-annual variability of albacore distribution, availability, and vulnerability to capture, all of which are markedly influenced by spatial and temporal variability in ocean conditions.
- Establishing a minimum fish size (age) limit where only mature fish could be landed would not work because the fishery is based exclusively on pre-adult 2, 3, and 4 year-old fish.
- Allowing only male albacore to be landed is not feasible because dissection is required to distinguish the gender of albacore.
- Technological changes most often overcome the effectiveness of input and/or output controls in controlling fishing effort.

4.2 Rights-Based Management Programs

Rights-based management programs include Limited Access (LA) and Limited Access Privilege Programs (LAPPs) for managing fisheries resources.

4.2.1 Limited Access (LA) Programs

Limited access (LA) programs are commonly used to regulate entry into a fishery in order to promote the conservation and sustained management of the stock, and to

maintain or enhance the economic health and stability of the fishing industry. They are a simple rights-based input controls, which give those with the right an interest in conservation provided the rights are guaranteed for a long time. On its own, however, a LA program does not promote economic rationalization (Allen et al in press). The effectiveness of LA's for holding harvest at safe levels depends on a multitude of factors including the number of permits relative to safe harvest limits, the types of other management controls that are put in place, and on the potential for input substitution in the fishing process. Also, limited entry or limited access simply limits entry, but does not limit use or catch, nor does it take into account technological changes in fishing.

4.2.1.2 Applying Limited Access to the U.S. West Coast Albacore Fishery

There are a number of potential advantages to adopting a limited access or limited entry fishery regulatory measure for managing the U.S. West Coast albacore fishery.

- Would allow the Council to act in a precautionary manner by developing a framework process in the near future to maintain or limit fishing effort thereby avoiding the risks of having to do so if the fishery is determined to be overfished in several years as has been indicated may happen by the IATTC and WCPFC if effort is not capped.
- Would provide both short-term and long-term benefits to the fishery in maintaining its viability.
- Initiating a LA program in the near future would likely not eliminate U.S. vessels in the fishery, since the number of U.S. vessels active in the fishery has been relatively stable during the recent 5 or more years.
- LA program would contribute towards preserving the health of the North Pacific albacore resource. The full effect of which requires that all Nations harvesting North Pacific albacore stock(s) keep fishing effort in check. According to WCPFC International Scientific Committee (ISC) documents, Japanese longline and baitboat fleets that target albacore are subject to strict capacity and other controls, and North Pacific albacore catch by these fleets is declining. Taiwan is constraining North Pacific albacore fishing effort to 2004 levels and the Canadian troll fleet has decreased. Korea reports that it is no longer targeting North Pacific albacore, but some albacore catches are made incidental to longline fishing for tropical tunas in the North Pacific.
- Undertaking this option before there is a possible 'emergency situation would likely allow increased opportunities for fishers and other stakeholders to play more active roles in the formulation of a LA program.
- A control date of March 9, 2000 is in place for the fishery, which may or may not be considered final in regard to the adoption of a LA.
- A program likely can be set up to allow permit transfers.
- It may be possible to structure a LA process that could accommodate the vessels from other West Coast fisheries that have a history of entering the albacore fishery when there are limited opportunities in their respective fisheries.
- It may be possible to structure a LA process that would allow 'grandfathering' of sons and/or daughters of active albacore fishers to enter the fishery in the future thereby maintaining family continuity in the albacore fishery and helping to ensure the

viability of the fishery.

- Setting up a LA program for the U.S. albacore fishery conceptually could be relatively straight forward since it is a single species fishery.
- Costs to plan and implement a LA program would likely be relatively low.
- Would ensure that the U.S. meets its responsibilities related to North Pacific albacore regarding U.N. Article 64.
- Adopting a LA program for the albacore fishery would also establish an assemblage of participants for future management measures should they be needed, possibly including stronger forms of rights-based management.

There are a number of actions that the Council could take leading to the adoption of a LA program for the U.S. West Coast albacore fishery. These are listed, with pros and cons, in Table 3.

There are several disadvantages for adopting a limited entry or limited access fishery management program for the U.S. West Coast fishery at this time.

- The last open access fishery on the West Coast would be closed needlessly if the scientific warnings are wrong that the fishery will become overfished in several years if effort is not capped.
- Concerns exist that the U.S. albacore fishery would be at a disadvantage if the U.S. takes action to cap fishing effort and other Nations do not.
- Possible complications could arise related to vessels that may move in and out of the albacore fishery from other West Coast fisheries, e.g., Dungeness crab, salmon and/or groundfish fisheries, in years when conditions in these fisheries are unfavorable.
- There could be complications regarding the U.S./Canada Albacore Tuna Treaty.

4.2.2 Limited Access Privilege Programs

Limited Access Privilege programs (LAPPs) are market-based or rights-based fishery management programs whereby an individual fisherman, community, or other entity is granted the privilege to catch a specified portion of the TAC of a fishery stock. Originally LAPPs were referred to as Individual Fishing Quotas (IFQs) or Individual Transferable Quotas (ITQs) where an individual fisher is granted a specified portion of the TAC, where the ITQ could be transferred to another user. Over time the concept of IFQs and ITQs has been expanded and is referred to as a LAPP in the amended Magnusson-Stevens Act (MSA) (Public Law 109-479). MSA specifies mandatory conditions and other provisions for designing LAPP fishery management programs. MSA also is clear that any LAPP is only a permit to harvest and does not confer any right to compensation and that there are no rights, title, or interest in any fish until it is harvested. LAPPs are generally designed by Fishery Management Councils, while NMFS implements and monitors them. The NMFS/Office of Policy has issued a comprehensive publication, *The Design and Use of Limited Access Privilege Programs* (Anderson and Holliday eds. 2007), to assist Regional Councils and NOAA NMFS in the design and implementation of LAPPs. This publication also includes summary information on ten current LAPPs in the U.S.

A LAPP type rights-based fisheries management program is believed by Joseph (2003) and Allen et al (in press) to be the most viable solution available for the international management of global tuna stocks to address the problems of excess capacity and over-exploitation. Over-exploitation of the North Pacific albacore resource does not appear to be a problem. Nevertheless, the following quote from Allen et al. (in press) is appropriate: *"…Unlimited entry into tuna fisheries must now change. Failing this, the inevitable outcome will be over-exploitation of the world's tuna stocks. Rights-based management, (*the concept upon which LAPPs are based) *wherein catches are allocated to participants and fleets are limited in numbers, can bring this change and provide incentives to fishers to maintain fleets at optimal levels. To accomplish this requires a change in mind set and political will of many nations whose citizens participate in world tuna fisheries, both on the high seas and in coastal zones.*"

New Zealand introduced the first major ITQ program in1986. Other foreign countries with ITQ or LAPP-like management programs include Australia, Canada, Iceland, Italy, the Netherlands, and South Africa. Although this is not a comprehensive list of all non-US ITQ programs, it indicates that ITQ management is widely used internationally. Some foreign countries, e.g., New Zealand and Australia, may apply more restrictive criteria for deciding if an ITQ or LAPP-like program is an appropriate measure for managing a fishery, including: 1) the sustainability of the overall catch, 2) adverse harvest effects on the aquatic environment or the sustainability of other species and/or biological diversity, and 3) issues of allocation between commercial and non-commercial users or inefficient utilization or under utilization of catches. Whereas, usually the major criterion for deciding if a LAPP is an appropriate measure for managing a fishery in the U.S. is if there is a concern of overexploitation of the fishery and that it is *overfished*.

Relatively early in the period when the U.S. began using ITQs for managing fisheries, the National Council for Science and the Environment conducted a thorough review of the measure for managing U.S. fisheries (Buck, 1995). A summary of Pros and Cons of ITQ programs taken from Buck's (1995) review is given in Table 4; the Pros and Cons from Buck also generally apply to LAPPs. Information in Table 4 indicates that LAPPs provide an option in fisheries management that can promote conservation of stocks, improve market conditions, promote safety in the fishing fleet, slow or eliminate the 'race to fish' and minimize overcapitalization. However, there can also be many disadvantages to the programs and they are not ideal, appropriate, or desired for every fishery or region.

4.2.2.1 Examples of Management Programs of Foreign Albacore and Other Tuna Fisheries Using LAPP-like and Other Measures

A summary table prepared by staff at the NMFS SWR Division of Sustainable Fisheries that lists several foreign countries using LAPP-like and other management strategies for albacore and other HMS fisheries is given in the *Appendix* (*Table A-1).* Most of the fisheries listed in *Table A-1* are longline fisheries that target southern bluefin tuna or swordfish (e.g., Australia SBT, WTBF, and ETBF; and New Zealand southern bluefin,

bigeye tuna, and swordfish) and make incidental catches of albacore and other large pelagic species.

The New Zealand albacore troll fishery has been considered in two consultations for introduction into the Quota Management System (an ITQ-based system used in New Zealand fishery management) and failed both times when stakeholders expressed strong opinions both for and against the proposal. In considering the information presented on albacore and the submissions received during both consultations, the Minister of Fisheries was not satisfied that the requirements to introduce albacore into the QMS were met, namely that the fishery has sustainability or utilization issues. However, since QMS is the preferred long term management regime for albacore it will be reconsidered for introduction when and if there is new information (New Zealand Minister of Fisheries. Albacore Tuna (ALB)- Initial Position paper – October 1, 2007). It is likely that the inclusion of albacore, as well as skipjack tuna, in the QMS will be incorporated in the development of fisheries plans for these species in 2009 (Personal communication cited in *Table A.1).*

The South Atlantic albacore stock, which is considered not overfished and no overfishing is occurring, and the North Atlantic albacore stock, which is considered overfished with overfishing going on, are subject to ICCAT international management. ICAAT has adopted TACs for the albacore stocks in both regions and assigned specific country quotas. In the Indian Ocean the status of the albacore resource is unknown due to a lack of data to conduct a stock assessment. However because of concerns about the status of the albacore stock, the Indian Ocean Tuna Commission (IOTC), which has international management authority, has adopted a conservation measure to limit fishing effort of the stock. In response to this, the European Union has established limitations of fishing capacity for Community vessels fishing for albacore on the Indian Ocean high seas where the IOTC has international management authority (Official Journal of the European Union, 2008. Council Regulation No. 1222/2008 regarding management measures adopted by the Indian Ocean Tuna Commission).

4.2.2.2 Applying a LAPP Program to the U.S. West Coast Albacore Fishery

A LAPP program could be carefully planned and implemented for the U.S. West Coast albacore fishery. There are advantages to taking this action including:

- Fishing effort by the U.S. fleet could be maintained or limited.
- It may allow fishers and others in the industry to make better long-range business decisions thereby enhancing the viability of the industry.
- Very significantly, it could further promote the conservation of the North Pacific albacore resource.
- Some albacore fishers favor an IFQ form of management for the fishery.

Anderson and Holliday (2007) are careful to point out that a LAPP for managing fisheries is not ideal, appropriate, or desired for every fishery or region. At this point in time, there are several reasons why this seems to be true for the U.S. West Coast albacore tuna fishery.

- It is questionable whether the fishery meets a primary criterion for LAPPs management, namely that the stock is overexploited. Stock assessment of the North Pacific albacore (addressed in Section 7 of this document) clearly indicates that the resource is not overexploited. But, when considering all of the fisheries that are harvesting North Pacific albacore, overfishing maybe going on and there is real concern that the resource may become overfished if present fishing effort by all Nations is not capped. Regarding the U.S. West Coast Fishery, it is important to note that in 2007 a segment of the fishery, the American Albacore Fishing Association, was the first tuna fishery in the world to receive Marine Stewardship (MSC) eco-certification. A similar application to the MSC in 2009 by the Western Fishboat Owners Association (another segment of the fishery) is nearing completion of the eco-certification process.
- It appears that currently there is no other compelling need for adopting a LAPP for managing the fishery.
    - ✓ The fishery is executed in a sustainable manner. (albacore are caught one at a time on hooks attached to individual lines or poles, it has virtually no bycatch issues, and virtually no interactions with protected species).
    - ✓ It has negligible environmental impacts (gear is minimal and loss almost never occurs, fishing takes place on or very near the sea surface and there is no contact with the ocean bottom).
    - ✓ There are no product utilization issues (the whole fish is retained and is almost entirely used for human and pet food and other products, e.g., fish oil and meal).
- A large number of albacore fishers strongly reject the idea of IFQs.
- There are high costs to design, implement, and operate a LAPP (GAO, 2005); there is a mandated cap of 3 percent of the ex-vessel value of the fish harvested for recovery costs to fund program management (data collection and analysis) and enforcement associated with LAPPs.
- Adoption of a LAPP would require careful evaluation of socio-economic factors of all segments of the U.S. albacore fishery and supporting infrastructure.

4.3 'No Action' Scenario

The 'no action scenario' would make no changes in the present status of the U.S. West Coast albacore fishery as an open access fishery. Advantages to retaining this option include:

- No costs required to retain present open access.
- Option favored some segments of the U.S. albacore fishing industry.
- Would avoid possible complications regarding the U.S./Canada Albacore Tuna Treaty.
- Would avoid complications related to vessels from other West Coast fisheries that 'come and go' to and from the albacore fishery when there are unfavorable conditions in their respective fisheries.

Disadvantages to retaining the open access of the fishery include:

- Council would continue to lack a mechanism or adequate controls to address maintaining or reducing fishing effort in the U.S. West Coast albacore fishery.
- If West Coast albacore fishery increases and the Council has no authority to regulate it, the U.S. possibly would be in violation of its responsibilities related to Article 64 of the United Nations Law of the Sea Convention that mandates States cooperate directly or through appropriate international organizations to ensure the conservation of tunas.
- The opportunity would be lost to use 'good sense' to initiate actions for the adoption of a framework process for the authority to maintain or limit fishing effort of the West Coast albacore fishery before there is a crisis and emergency action may be required.
- The opportunity would be lost to heed the argument put forth by Allen et al (in press) who stated that "… *Allowing the resources to be treated as common property, open access, or controlled open access fisheries, has led to excess fishing capacity, which has led to overexploitation"… "It has been shown that such excess capacity exists in all oceans and so long as the concept of open access and common property management prevails, this problem of overcapacity will not be corrected."*

4.4 Summary of Management Options

To reiterate, access decisions are made to define who gets to fish, whereas input/output controls determine how much fishing or how much catch. If spawning stock declines below reference points the fishery will be classified as overfished and actions will be required to ameliorate this situation by implementing input and/or output controls. Similarly, if the rate of fishing is too high (which will lead to SSB declining to an overfished state) then the fishery is classified as undergoing overfishing and again this is ameliorated by I/O controls. If I/O controls are needed to limit mortality then there will be impact on fishers. If they did not, then the controls would not be effective in addressing the stock's status. However, choosing the proper access process can help in addressing those impacts and to assure those impacts are not protracted.

In the case of a fishery under the auspices of international management regimes such as the U.S. West Coast albacore fishery, the process is the same with the addition of country allocations. For example, an overall TAC is chosen based upon stock status. This TAC is then partitioned into country allocations. Then it is the country's responsibility to implement measures to assure that their fishers stay within that allocation. This process occurs regularly in ICCAT, IATTC, SBT and other RFMOs (international commissions). In some cases individual countries choose to implement these through input controls, in some cases output controls; and all use various access programs (several mentioned above). In some cases enforcement is a country responsibility, but in others joint enforcement arrangements are made through the RFMO. Additionally, most of the RFMO have formal compliance committees to deal with monitoring. The country decisions are geared to the particular needs of the country's fisheries. However, if a country allocation of a TAC is needed it is important for the nation to have processes in place to implement the needed actions.

5. Description of the North Pacific Albacore Resource

This segment of the 'White Paper' includes a description of the North Pacific albacore resource including its life history, biology, stock structure, and habitat and ecosystem. A review of information regarding the stock structure of albacore entering West Coast waters is provided in *Appendix A-2.*

5.1 Distribution, Life History, Biology, and Ecology

Albacore is a highly migratory tuna found in all of the global oceans and Mediterranean Sea; about 40% of its total biomass is in the North Pacific, 27% in the South Pacific, 25% in the Atlantic, 8% in the Indian and <1% in the Mediterranean. Albacore mature at a relatively early age of approximately 5 or 6 years (Ueyanagi 1957, Otsu and Uchida 1963) and have a moderate lifespan to about 10 to 12 years. The species is highly fecund with 0.8 to 2.6 million eggs per spawning (Ueyanagi 1957; Otsu and Uchida 1959). Spawning occurs generally throughout much of the year, with a peak usually in summer months in the central and western North Pacific (Otsu and Uchida 1959) and in the winter months in eastern Pacific off Mexico (Wetherall et al 1987). Spawning in the North Pacific takes place in subtropical waters between about 10^{o}N to 25^{o}N latitudes in the western Pacific (Ueyanagi 1957), in the vicinity of the Hawaiian Islands (Brock 1943, Otsu and Uchida 1959; Yoshida 1968;), and to a lesser degree in the eastern Pacific off Guadalupe Island, Mexico (Scofield 1914, Anon. 1953, and Clemens 1961). Growth rates are moderate (Otsu 1960, Nose et al, 1957, Clemens 1961, Yabuta and Yukinawa 1963, and Laurs and Wetherall 1981). Estimates of the fork lengths at first birthday have been estimated to range from about 38 cm (Laurs et al 1985) to 45 cm (Clemens 1961), and the fork length at sexual maturity at approximately 90 cm or somewhat less (Otsu and Uchida 1959).

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 must swim constantly to overcome their negative buoyancy and to continuously force water over their gills to maintain respiration (Brill and Bushnell 2001). They are endothermic as the result of a countercurrent *rete mirable* heat exchanger system (Carey and Teal 1966 Graham and Dickson 1981, and Graham and Dickson 2001), which enables them to maintain internal core body temperatures up to 10^{o} C warmer than ambient ocean water temperatures (Graham and Dickson 2001). Temperatures lower than 10^{o}C disrupt albacore physiological processes and may lead to fatality (Graham and Laurs 1982).

Albacore metabolic rates are 2 to10 times higher than most other bony fishes (Graham and Laurs 1982). As a likely consequence, albacore are restricted to waters with dissolved oxygen saturations greater than 60 percent (Cech et al 1985). Albacore are also different from most other teleosts in having a high blood volume (Laurs et al 1981), high cardiac performance (Breisch et al 1983), specialized hemoglobin-oxygen dissociation characteristics (Cech et al 1984), and other cardiac and vascular system distinctions that adapt them (Lai et al 1987, White et al 1988; and Graham et al 1989) for fast swimming (Dotson 1976, Magnuson1978). In addition, albacore have very large eyes for detecting prey and specialized fins and body form to reduce drag.

5.2 Habitat and Ecosystem

The habitat of albacore generally is open ocean pelagic waters, mostly in the vicinity of oceanic fronts. The horizontal dimension of albacore habitat in the North Pacific is linked to oceanic frontal structure associated with the Kuroshio Current, the Kuroshio Current Extension Waters, the North Pacific Transition Zone and the Subtropical Convergence Zone (NPTZ), and the California Current System. Oceanic frontal structure greatly influences the distribution, relative abundance, and availability of albacore, as well as the location of migration routes and rates, and their vulnerability to capture. Sub-adult albacore make trans-Pacific migrations associated with the NPTZ (Laurs and Lynn 1977) and have been linked with various regional or mesoscale features of the North Pacific Ocean (Laurs and Lynn 1977, Polovina et al 2001, Broder et al in prep). They move along oceanic thermal fronts as they migrate and form transient aggregations or patches in areas of local enrichment favorable for foraging (Laurs 1983; Laurs et al 1984, Laurs and Lynn 1977, 1991, Laurs et al 1977, Polovina et al 2001, Zainuddin et al 2006).

The vertical distribution and albacore habitat is related to the configuration and depth of ocean vertical thermal structure and is mostly in waters located in or near the thermocline (Laurs 1982 and Kohin in prep). The vertical distribution of pre-adult albacore is shallower than that of adult sexually mature albacore. As a consequence, pre-adult albacore are targeted by surface troll and pole-and-line fisheries in temperate zone waters of the North Pacific by the Japanese fishery in the western Pacific and the U.S. and Canadian fisheries in the eastern Pacific. Deeper dwelling adult albacore are pursued in the subtropical and tropical zones of the North Pacific by Asian pelagic longline fisheries and are also caught incidentally by the Hawaii-based and other longline fisheries.

In coastal waters off the coast of North America, sea surface temperature (SST), coastal upwelling, Columbia River plume, and other oceanic frontal features play critical roles in the aggregations and behavior of prey species, which in turn influence the distribution, availability and catchability of albacore (Pearcy and Mueller 1970; Pearcy 1973, Laurs and Fiedler, 1984, and others). Most albacore caught by trolling and pole-and-line fishing are from waters that have SSTs between 15^{o}- 19.5^{o}C (Clemens, 1961, Flittner 1963, and many others).

Albacore are opportunistic carnivores that occupy relatively high trophic levels. Their diet is made up of a variety of pelagic and mesopelagic species including small fishes, cephalopods, and crustaceans (Iverson 1962, Iverson 1971, Bernard et al 1985, Watanabe et al 2004, Glaser 2008; and others). Little is known about what animals prey on pre-adult and adult albacore, but are believed to be large marine mammals, sharks, and billfish. Young albacore have been found in stomachs of large tunas and other large fishes (Yabe et al 1958 and Yoshida 1965).

Albacore distribution and availability is known to fluctuate extensively over a range of spatial and temporal scales, which appear to be related to ocean-atmosphere interactions, oceanic tele-connections, and large-scale climatic variability. Albacore provide a good

example of Hallett et al, 2004 conclusion that large-scale indices are often better predictors of ecological processes and population fluctuations than local climate. Clark et al 1975 found that the distribution of albacore tuna along the west coast of North America and the growth of conifers in western North America are linked by large scale atmospheric flow patterns, which are influenced by air-sea interaction processes over the eastern North Pacific. Although the albacore and conifer ecosystems respond to their respective environments during different times of the year, there is strong evidence that they are reacting to the same climatic fluctuations that are responsible for major north-south shifts in North Pacific albacore availability along the coast of North America (Laurs et al 1974, Clark et al 1975). Modeling climate-related variability of tuna populations from a coupled ocean-biogeochemical-populations dynamics model, Lehodey et al (2003) demonstrated that El Nino conditions have negative effects on albacore recruitment in the western South Pacific. Similar research on the effects of El Nino conditions on recruitment of North Pacific albacore needs to be undertaken.

5.3 Stock Structure

In the Pacific Ocean there are believed to be separate and distinct stocks of albacore in the northern and southern hemispheres (Ueyanagi 1960; Nakamura 1969; Lewis 1990; IATTC 2006; and others). There appear to be two subgroups of albacore in the North Pacific Ocean. (Laurs and Lynn 1991). The fish of the northern subgroup occur mostly north of 40°N when they are in the eastern Pacific Ocean. There is considerable exchange of fish of this subgroup between the troll fishery of the eastern Pacific Ocean and the pole-and-line and longline fisheries of the western Pacific Ocean. The fish of the southern subgroup occur mostly south of 40°N in the eastern Pacific, and relatively few of them are caught in the western Pacific. Fish that were tagged in eastern Pacific offshore waters and recaptured in the West Coast exhibited different movements, depending on the latitude of release. Most of the recaptures of those released north of 35°N were made north of 40°N, whereas most of the recaptures of those released south of 35°N were made south of 40°N. The stock structure of North Pacific albacore is not fully understood and is a priority need for further research, perhaps, using modern genetic approaches, e.g., microsatellite DNA genetic methods which was recently successful in differentiating separate albacore stocks in the western and eastern South Pacific (Takagi et al, 2007). A review of information regarding the stock structures of albacore entering the U.S. West Coast albacore fishery is provided in *A-2*.

6. Fisheries Operating on North Pacific Albacore

As noted earlier, North Pacific albacore are targeted or caught incidentally by numerous fleets from a number of Nations. These include the Japanese and Taiwanese pelagic longline fisheries that target albacore and the Korean longline fishery that catch albacore incidentally in the western and central North Pacific; the U.S. Hawaiian longline and hand-line fisheries that catch albacore incidentally in the central North Pacific; the Japanese pole-and-line fishery carried out in the western North Pacific; the U.S. troll and limited pole-and-line fishery executed in the eastern North Pacific mostly along the U.S. West Coast; the Canadian troll fishery operating largely in the U.S. EEZ ; and the U.S.

recreational hook and line fishery that traditionally takes place mostly off southern California and to a lesser degree along the entire U.S. west coast. Several other countries also have minor fisheries with various fishing gears that incidentally catch North Pacific albacore. Asian drift-gillnet fisheries targeted and caught substantial amounts of albacore across much of the North Pacific mostly during the mid-1970s and 1980s. However, drift gillnet fishing was halted by U.N. action in 1992. Although the magnitude is difficult to estimate, some IUU drift gillnet fishing apparently continues to take place in the North Pacific, which likely catches some albacore, but accurate amounts are unknown.

For the most part, only basic fishery data are available for most of the fisheries catching albacore in the early years. However, in recent years the data provided by countries have been improved and expanded to include: catches and number of vessels, summarized catch and effort, and size composition of the catch. Information on the annual amounts of catch taken by country for 1952 – 2007 is given in Table 5 and Figure 3, respectively.

The record high total catch of North Pacific albacore for all nations combined was 125,433 mt in 1999 and the record low catch was 37,325 mt in 1991 (ISC 2008). During the 5 year period 2003 - 2007, the total catch ranged from 62,722 mt to 92,647 mt and averaged 78,730 mt. Fisheries based in Japan accounted for 66.6 percent of the total harvest, followed by fisheries in the U.S. 15.9 percent, Chinese-Taipei 8.4 percent, Canada 6.3 percent and all other countries 2.8 percent.

Annual North Pacific albacore catch by gear type is shown in Figure 4. The average percentages of the catch by gear type were: pelagic longline 37.5 percent, pole-and-line 36.8 percent, troll 20.2 percent, and all other gears including the U.S. recreational hook and line 5.5 percent.

6.1 History of the U.S. West Coast Albacore Fishery

In the late 1890's and early 1900's albacore were considered a ‘nuisance fish’ that took fishing lures being trolled by sports fishermen in the Los Angeles Bight for blue fin tuna (Clemens 1961). The U.S. west coast commercial fishery began in the early1900’s when fishers commenced targeting on seasonally migrating albacore in near-shore ocean waters off southern California to meet the needs of a tuna cannery established there. In 1903, an experimental pack of 700 cases of albacore led to the development of the U.S. tuna canning industry. The troll fishery for albacore gradually spread northwards, but was restricted to waters off California until the late 1930’s, when it extended to coastal waters off the states of Oregon and Washington, and eventually to off British Columbia, Canada. From its beginning until the late 1970’s, the troll fishery usually began operating in early July, when migrating albacore approach the west coast of North America, and was primarily conducted within a couple hundred miles of the coast. From 1961 through 1979, approximately 99 percent of the reported U.S. catches of North Pacific albacore were made within 200 miles of the North American coast, with 84 percent off the U.S. coast and 9 percent and 7 percent in the jurisdictional waters of Mexico and Canada, respectively. From the late 1970’s until about 2000, U.S. albacore fishers with larger vessels began troll fishing in the early spring months on the high seas. Some of these

vessels operated as far west as the International Dateline and beyond, to extend the fishing season by intercepting albacore migrating towards the coast of North America. However, during the recent five or so years, the fishery has operated mostly within a few hundred miles of the coast, apparently because of high fuel and insurance costs and uncertain market conditions.

The history of the U.S. pole-and-line fishery for albacore differs somewhat from that of the troll fishery, and is linked to the U.S. tropical tuna fishery for yellowfin, bigeye, and skipjack tunas. The pole-and-line method of catching albacore, which is also referred to as bait-boat or live-bait fishing, also began in the early 1900's with vessels operating within a one-day run from port to provide product for the tuna cannery located in southern California. A poor catch of albacore in 1918 forced pole-and-line boats to shift to fishing for tropical yellowfin and skipjack to fill the cannery's demand for tuna. In subsequent years, even though the availability of albacore may have been high, the amount of pole-and-line effort expended for albacore was thereafter greatly influenced by events in the tropical tuna fishery. Nevertheless, in some years up to forty percent of the annual catch of albacore on the west coast was caught by pole-and-line vessels. In the late 1980s, U.S. pole-and-line vessels were prevented from catching bait, which is used to fish for tropical tunas, in the Mexican EEZ. Consequently, most of the pole-and-line vessels were soon sold to other countries or converted to albacore troll fishing. From the late 1980s through about 2000 there were only very small amounts of albacore caught by U.S. pole-and-line fishing. However, resurgence in U.S. pole-and-line fishing began in about 2003, and up to perhaps 50 or so vessels presently use this fishing method in the U.S. fleet. The frequency of records for troll and pole-and-line gear types in the NMFS SWFSC west coast albacore logbook database for the years 1961 – 2006, provides a timeline showing a rough approximation of the relative amounts of U.S. albacore troll and pole-and-line fishing, Figure 5 (from Barr 2009).

Traditionally, over 90 percent of the albacore catch taken by the U.S. West Coast fishery has been purchased by major U.S. processors for canning and marketed as premium 'white meat' tuna. However, in recent years the large U.S. processers have purchased only about 10 percent of the catch. As a consequence, fishers have developed alternative markets. An increasing amount of the catch is being marketed in the fresh and fresh-frozen trade, canned by small 'boutique processers, and exported to Europe (WFOA Website).

A review of fishing methods and equipment used in the U.S. albacore fleet is given in Dotson 1980. Although the basic gear and methods of fishing have changed little, many albacore fishing vessels today are outfitted with an array of sophisticated electronic equipment e.g., satellite navigation, advanced communications equipment, various types of acoustic sounders and fish-finders, computers, ocean sensors, etc. Many fishers also use information derived from satellite ocean remote sensing to help guide fishing operations.

6.2 Trends in U.S. Albacore Fishing Effort

In the 1940's there were about 500 vessels in the U.S. west coast albacore fleet. A high of about 3,000 vessels was reached in 1950; the number dropped to about 1,000 by 1960, climbed to approximately 2,100 during the 1970's and dropped to fewer than 500 boasts in the late 1980's (Laurs and Dotson 1992). Characterization of recent U.S. North Pacific albacore commercial fishing effort was recently examined in response to a Council request to the HMS MT. The report and analyses were prepared by NOAA NMFS Southwest Fisheries Science Center and the PFMC HMSMT (PMFC 2007); this work was carried out under the leadership of Suzy Kohin at the SWFSC. Table 6 (p.38) shows the number of troll and pole-and-line vessels, number of vessel days of fishing effort, and landings for the years 1996 – 2005. During this 10 year period:

- Number of vessels ranged from 549 in 2005 to 1,121 in 1997, and averaged 750.
- Number of vessel-days ranged from 21,445 in 1998 to 45,572 in 1997, and averaged 29,630..
- Landings ranged from 9,122 mt in 2005 to 16,938 mt in 1996, and averaged 12,347 mt.

A histogram plot of the number of U.S. West Coast albacore troll and pole-and-line vessels by year (Figure 6a) shows that except for a peak of 1,121 in 1997, the number of vessels in the fleet has been more-or-less constant, but with steady slight declines during 1998 through 2000 and 2003 through 2005. Histograms of the number of vessel-days of fishing effort and landings are shown in Figure 6b. Except for a peak in 1997 (when there was a peak in the number of vessels), the amount of effort (number of vessels-days) was somewhat variable, but a little bit higher in the first five years of data than the last five. It's interesting to note that during the last three years of data used in the analysis (2003 – 2005), while the number of vessels decreased somewhat, the number of vessel-days of effort increased very slightly. There appears to be little relationship between the number of vessel-days and landings (Figure 7).

The mean number of effort-days and amount of catch by gear type for all U.S. commercial fisheries landing North Pacific albacore, including incidental catches of albacore by the Hawaii longline fleet, during the period 1996 – 2005 are shown in Table 7, which shows that:

- Number of effort days and amount of catch by the troll and pole-and-line fleet were 29,630 days and 12,347 mt, respectively,
- For the Hawaii-based longline were 2,486 days and 1,048 mt, respectively, and
- For all other gears were 920 days and 106 mt, respectively.

The bulk of the catch, 90.4 percent, was harvested by the troll/pole-and-line fleet, 6.8 percent by the Hawaii-based longline fishery in the central Pacific, and 2.8 percent by other commercial gears, e.g., California gillnet fishery, purse seiners, Hawaii handline fishing, etc. (Table 7).

7 North Pacific Albacore Stock Assessment

North Pacific Albacore stock assessments have been conducted by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) and its predecessor, the North Pacific Albacore Workshop for the last several decades. The most recent assessment was conducted in December of 2006 (Stocker 2006). The ISC charge is to provide scientific advice for management of North Pacific albacore through assessments and the associated activities of collating and maintaining international data bases, coordinating biological research (including the setting of research priorities) and facilitating the development of assessment methods. Because of the ISC and its predecessor's long history of scientific activity in regards to North Pacific albacore, it remains the principal scientific body providing input to both the WCPFC and the IATTC.

7.1 Assessment Methods

The current assessment is based upon Virtual Population Analysis (VPA) methods in which catch, catch-at-age, and indices of abundance (standardized catch-per-effort data, CPUE) are statistically fit by a backward projection model. The methodology is well-known and used in many assessment arenas. Assumptions of the method are also well-known, as are the ramifications of deviations from those assumptions. The major assumptions of VPA are that catch-at-age are estimated without error and are complete, i.e. that catches-at-age are available from all fishing sectors, and that the standardized catch-per-effort indices are proportional to the abundance of the age-groups that are selected by the gear from which the CPUE is derived. During the most recent assessment, alternative modeling approaches were explored, most notably Stock Synthesis Version 2 (SS2). In addition to utilizing CPUE data, the SS2 approach uses statistical forward projection methods in which catch-at-age can be measured with error and data need not complete for all sectors. Conversely, this method requires explicit modeling of the stock-recruitment relationship and of the age or size selectivity by the fisheries. The ISC is likely to move toward using SS2 more prominently in its next assessment in 2011(ISC 2008). Presumably, this method would allow utilization of tagging data more directly in the analysis, as well. This would allow spatial dynamics and spatial management to be explored. However, model development issues preclude this from being implemented within the next assessment cycle.

7.1.2 Indices of Abundance

The CPUE indices of abundance evaluated in the assessment included longline indices, troll indices and pole and line indices from Japanese, US and Taiwanese fisheries. General linear modeling methods were used for standardization in which spatial, seasonal and other effects were examined to determine if their impact on the index was likely related to abundance or to other extraneous factors.

7.2 Assessment Results

Trends in spawning stock biomass (SSB) and fishing mortality rate are shown in Figures 8a and 8b, respectively. Pertinent conclusions from Stocker (2006) were: *"… although current SSB reached a historically high level in 2006 (roughly 153,000 mt), projected levels of SSB are forecasted to decline to the long-term average (approximately 100,000 mt) observed over the modeled time period (1966-05), i.e., the stock is predicted to decline to the equilibrium level of roughly 92,000 mt by 2015. Further, the ISC-ALBWG strongly recommended that all countries support precautionary-based fishing practices (e.g., limits on current levels of fishing effort) at this time, given the following:*

(1) the current level of fishing mortality (i.e., spawning potential ratio of F17) is high relative to commonly used reference points and often associated with overfishing thresholds in various fisheries world-wide;

(2) a retrospective analysis indicated a noticeable trend of over-estimation of stock biomass over the last two assessment cycles;

(3) the considerable decline in total (North Pacific Ocean) catch over the course of the last two years, particularly in 2005, when the total harvest (roughly, 62,000 mt) was the lowest recorded since the early 1990s."

7.3 Biological Reference Points

Biological reference points are the standards by which status of a stock is measured. Typically there are two such standards in fisheries assessment and fisheries management: 1) a measure of fishing mortality rate (F) which should not be exceeded and 2) a minimum level of SSB. The former defines the metric of overfishing and the latter defines the level at which the stock is considered overfished. Formal criteria for these measures have yet to be adopted by the WCPFC and the IATTC. However, proposals for doing this have been introduced at the WCPFC. In the interim the ISC has begun to explore options for doing this (Stocker 2006, ISC 2008). In particular, the 2006 assessment report (Stocker 2006) noted that " *a fishing mortality-based reference point ($F_{SSB\text{-}Min}$) designed to ensure that SSB in future years remains within the range of the historical 'observed' SSB was introduced at an earlier ISC Plenary Meeting conducted in 2005. Even though the ISC forum has not yet determined which reference points are appropriate for North Pacific albacore (or other highly migratory stocks), preliminary discussions within the ISC Plenary forum in 2005 regarding candidate SSB-based 'thresholds' to consider, including: minimum 'observed', lower 10th percentile, lower 25th percentile, and median. In this context, at the 95% probability of success, all of the thresholds (lower 10th percentile, lower 25th percentile, and median) would require reductions in future F from the current estimated level (F=0.75); noting that the future F=0.64 associated with the minimum 'observed' SSB target is roughly equal to the current rate. However, this minimum SSB value occurred at the beginning of the overall, estimated time series and necessarily reflects additional uncertainty. Thus, the ISC-ALBWG felt that the thresholds based on the lower 10th percentile, lower 25th percentile, and median represented more robust and ultimately, precautionary thresholds that should be considered."*

Subsequently, biological reference points based upon proxies of the fishing mortality rate at maximum sustainable yield (MSY) were explored (ISC 2008). The proxies ranged from $F_{20\%SPR}$ to $F_{40\%SPR}$. Note that an F_{SPR} proxy for MSY is not necessarily the most appropriate choice for a management limit. However, the results are consistent with previous assessment results that the North Pacific albacore stock is experiencing fishing mortality rates that are near full exploitation.

In September 2008, the Northern Committee of the WCPFC established an interim management measure in which the spawning stock biomass is to be maintained above the average level of its 10 historically lowest points and if that level were to be reached the fishing mortality rate should be reduced as needed to attain the spawning stock biomass objective. Additionally, more permanent objectives with specific reference points are to be developed.

7.4 Implications of Assessment Results for Management

In response to North Pacific albacore assessments, limits on any further increases in fishing effort have been established by the WCPFC and the IATTC. Should more rigorous measures be needed to control albacore fishing effort, then this implies that mechanisms for international and thus, spatial control might be needed.

8. Economic Research and Bio-Economic Modeling

Recent economic research has centered on measuring the annual rate of increase in technical change for the US and Canadian surface hook and line fleet over the period 1981-2006 (Squires and Vestergaard 2009). The empirical analysis employs the catch and days fished data used in the international stock assessments by the population biologists of the fishery's representative countries (McDaniel et al. 2006). These catch and days fished data are for all landings by all vessels. Vessel numbers for the U.S. over 1981-2066 were obtained from the PacFIN Research Data Base and for Canada over 1995-2006 were obtained from the Department of Fisheries and Oceans. Econometric estimation of a Schaefer type production function allowed for technical change and technical inefficiency, specified fishing effort as a composite of days fished and vessel numbers, and employed stock estimates from the international stock assessments (see Section 7). The details can be found in Squires and Vestergaard 2009. The estimated annual rate of technical change was about 3.5 percent. Ultimately, this rate is a residual value, but a confident estimate of annual technical change of at least 2 percent and up to 3.5 percent is warranted.

The annual rate of technical progress is due not to changes in the gear per se, but is due to increased understanding of ocean conditions allowing forecasting of fish locations through temperature sensing devices reinforced by satellites, improvements in interpretation, and GPS, all of which give information about the overall distribution of albacore, dramatically reduces searching, and eases finding schools below the surface. Improved communications and computer technology onboard albacore fishing vessels, as well as shore-based, allow sharing of information among members of code groups, reducing search time, and increasing catch rates. Acoustic devices, such as sounders, are

also increasingly sophisticated. The fishing gear itself has remained relatively static. Improved weather forecasts extend the end of the fishing season.

The effect of relatively high rates of fishing power or increase in technology are to undermine the effectiveness of input controls and shift the management focus to an output or catch orientation. A major advantage of a rights-based LAP management program is that the fishery manager does not have to explicitly account for the growth in technology (although it needs to be incorporated into population assessments). Instead, the market for catch shares accounts for the lowering of fishing costs and increasing catch rates.

Preliminary bio-economic modeling conducted in a surplus production framework demonstrated the importance of accounting for technical change on the optimum resource stock (Squires and Vestergaard 2009). The empirical results are too preliminary to provide reliable estimates for management purposes, but do illustrate the long-term effects of the steady march of technology on estimates of resource stocks and their optimum use. Not accounting for technical changes clearly can lead to inappropriate management measures.

TABLES

Table 1. Distribution of vessel months used by U.S. and Canadian fleets for 2008.
Source NMFS/SWRO

Monthly Vessel Month Utilization

2008							
	June	July	August	September	October	November	Total
US	0	0	24	34	11	4	73
Canada	6	79	110	107	53	4	359

Table 2. Pros and cons of input and/or output controls applied to U.S. West Coast albacore fleet.

CONTROL	PROS	CONS
Establish catch or trip limits; establish TAC	Reduce amount of effective fishing effort and catches of albacore	Likely result in severe economic efficiencies for albacore fleet
Establish size/age limits restricted to larger/older albacore	Increase yield per recruit; greatly reduce catches	Eliminate most of the U.S. albacore fishery which is based on pre-adult 2, 3, and 4 year old fish
Retain only male albacore	Greatly increase abundance of spawning females	Gender is disguisable only by dissection
Establish closed areas	Reduce amount of effective fishing effort if selected correctly	Very difficult to determine because albacore availability, distribution, and vulnerability to capture are markedly affected by changing ocean conditions; difficult to enforce
Limit number of lines or poles fished	Reduce amount of fishing effort	Probably not possible to enforce; during very active catching usually only jigs with short lines are pulled
General use of input and/or output controls	Reduce amount of fishing effort and catches of albacore	Fishers likely would develop technological changes to overcome controls which could have the effect of increasing effort even though nominal effort may remain constant
General use of input and/or output controls	Reduce amount of fishing effort and catches of albacore	Highly migratory behavior and variable seasonal distribution and availability of albacore in West Coast waters would greatly reduce effectiveness of input and/or output controls

Table 3. Pros and cons of actions for adopting a Limited Entry program for the U.S. West Coast albacore fishery.

ACTION	***PRO***	***CON***
Remove from control date database vessels that have made less than some minimum albacore landing since establishment of control date.	Improve accuracy of control date database.	Vessels with albacore landings below some minimum amount not eligible for LA permit.
Add to control date database vessels that landed more than some minimum amount of albacore since establishment of control date.	Improve accuracy of control date database; makes vessels that made landings after control date established eligible for LA permit,	No obvious con.
Establish moratorium on the issuance of new HMS permits for albacore for 5 years.	Improve accuracy of HMS albacore permit database; no new fishing effort increases.	Eliminate new entries into albacore fishery.
Impose performance criteria for renewal of HMS albacore permit e.g., minimum amount albacore landed.	Improve accuracy of HMS albacore permit database.	No obvious con.
Remove vessels from HMS albacore permit database that have made less than some minimum landing of albacore.	Improve accuracy of HMS albacore permit database.	Vessels with albacore landings below some minimum amount not eligible for LA permit
Adopt Limited Entry program for U.S. West Coast albacore fishery.	Maintain industry viability and preserve health of North Pacific albacore resource.	Eliminate last open access West Coast fishery; possibly eliminate opportunities for some crab, salmon and other vessels to fish for albacore when those seasons are poor; put U.S. at possible disadvantage if other Nations keep open access; cause controversy with Canada over their albacore catches made under Treaty in U.S. EEZ.

Table 4. Pros and cons of ITQ programs for managing fisheries (taken from Buck 1995 report, National Council for Science and the Environment).

PROS	CONS
Reduce overcapitalization.	Can increase incentive for fishermen to file false catch reports and 'high-grade'.
Promote conservation of stocks.	Possible for processors or wholesalers to obtain effective monopoly control over landings.
Improve market conditions.	Discourage new entrants into a fishery because of capital investment required to purchase or lease shares.
Promote safety in the fishing fleet .	High costs to set and enforce
Slow or eliminate 'race to fish'.	Equity of current approaches to initial allocation of ITQ shares questioned for their creation of wealth and windfall profits and their exclusion of processors and crew .
	Can cause substantial unemployment and socio-economic dislocation in coastal communities.
	Administrative processes for implementing ITQ plan can be as long as 5 years or more, this leads to create the impression that inadequate consideration has been given to "current" fishery participants and can contribute to public opposition.

Table 5. North Pacific albacore catches (mt) by country and fisheries, 1952 – 2007.

	Canada	Japan	Korea	Mexico	Taiwan	US	Others	Total
1952	71	68,865	0	0	0	25,262	0	94,198
1953	5	60,868	0	0	0	15,934	0	76,807
1954	0	49,088	0	0	0	12,406	0	61,494
1955	0	40,657	0	0	0	13,850	0	54,507
1956	17	57,208	0	0	0	19,239	0	76,464
1957	8	70,787	0	0	0	21,473	0	92,268
1958	74	40,739	0	0	0	14,910	0	55,723
1959	212	30,121	0	0	0	20,995	0	51,328
1960	5	42,737	0	0	0	20,661	0	63,403
1961	4	36,351	0	41	0	16,253	41	52,690
1962	1	24,737	0	0	0	22,526	0	47,264
1963	5	40,161	0	31	0	28,740	31	68,968
1964	3	39,763	0	0	0	22,627	0	62,393
1965	15	55,324	0	0	0	17,693	0	73,032
1966	44	48,576	0	0	0	17,530	0	66,150
1967	161	59,959	0	0	330	22,646	0	83,096
1968	1,028	41,934	0	0	216	26,302	0	69,480
1969	1,365	51,374	0	0	65	22,195	0	74,999
1970	390	41,319	0	0	34	26,279	0	68,022
1971	1,746	65,691	0	0	20	23,783	0	91,240
1972	3,921	74,513	0	100	187	27,995	100	106,816
1973	1,400	87,449	0	0	0	17,987	0	106,836
1974	1,331	88,237	0	1	486	25,058	1	115,114
1975	111	63,023	2,463	1	1,240	22,858	1	89,697
1976	278	103,612	859	41	686	19,345	41	124,862
1977	53	49,342	792	3	572	12,040	3	62,805
1978	23	80,122	228	1	6	18,442	1	98,823
1979	521	62,984	259	1	81	7,158	1	71,005

Table 5. North Pacific albacore catches (mt) by country and fisheries, 1952 – 2007 (Cont).

	Canada	Japan	Korea	Mexico	Taiwan	US	Others	Total
1980	212	65,925	603	31	249	8,106	31	75,157
1981	200	56,611	475	8	143	13,605	8	71,050
1982	104	59,893	500	0	38	7,417	0	67,952
1983	225	43,515	687	0	8	10,059	0	54,494
1984	50	53,952	652	107	0	15,491	107	70,359
1985	56	48,107	867	14	0	9,124	14	58,182
1986	30	39,005	967	3	0	5,391	3	45,399
1987	104	41,842	1,366	7	2,514	3,160	7	49,000
1988	155	31,363	1,425	15	7,389	5,232	15	45,594
1989	140	32,084	1,173	2	8,390	2,386	2	44,177
1990	302	32,629	1,022	2	16,705	3,038	2	53,700
1991	139	30,594	855	2	3,410	2,323	2	37,325
1992	363	41,289	286	10	7,866	5,034	10	54,858
1993	494	46,806	32	11	5	6,788	11	54,147
1994	1,998	59,077	45	6	83	11,969	164	73,342
1995	1,763	52,452	440	5	4,280	9,339	142	68,421
1996	3,316	54,394	333	21	7,596	18,517	2,261	86,438
1997	2,168	74,324	319	53	9,119	17,192	3,281	106,456
1998	4,177	61,776	288	8	8,617	17,020	6,165	98,051
1999	2,734	91,912	107	57	8,186	15,812	6,625	125,433
2000	4,531	54,887	414	103	8,842	12,634	4,247	85,658
2001	5,248	59,851	82	22	8,684	14,618	1,620	90,125
2002	5,379	76,655	113	28	7,965	13,918	855	104,913
2003	6,861	58,849	144	28	7,166	17,044	2,555	92,647
2004	7,856	57,713	68	104	4,985	15,512	2,631	88,869
2005	4,829	38,682	520	0	4,472	10,692	2,527	61,722
2006	5,819	38,948	520	109	4,317	13,266	2,636	65,615
2007	6,112	65,273	520	40	4,317	5,969	2,567	84,798

Table 6. U.S. albacore troll and bait-boat fleet: No. vessels, vessel-days, and landings, 1996 – 2005.

U.S. Albacore Troll/Baitboat Fleet: No. Vessels, Vessel-Days, and Landings 1996 - 2005

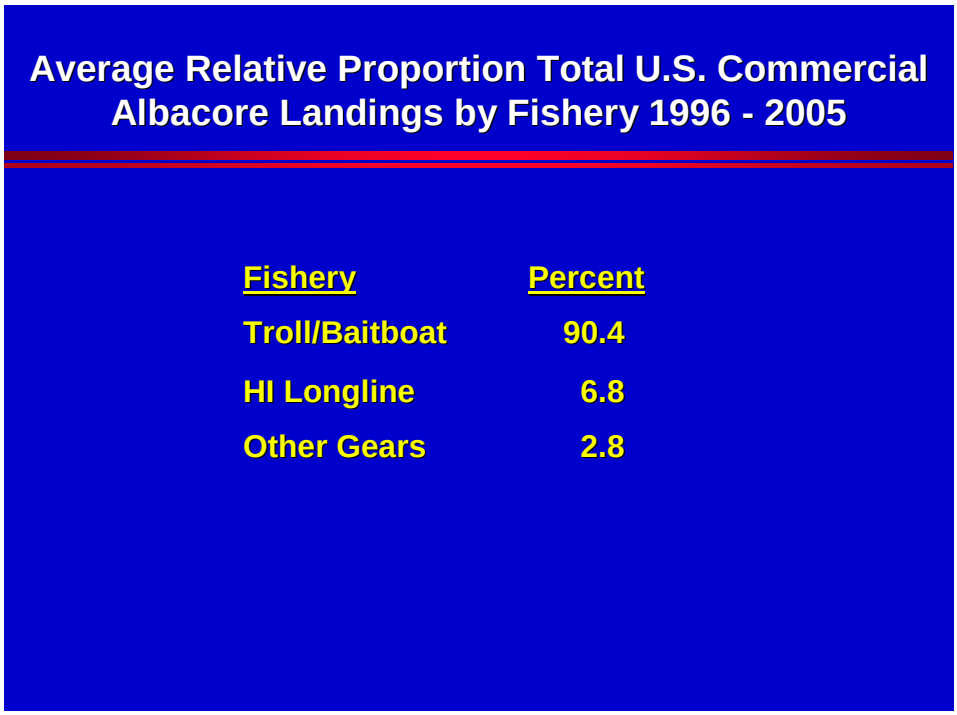
Year	No. Vessels	Vessel-Days	Landings (MT)
1996	640	32,717	16,938
1997	1,121	45,572	14,252
1998	755	21,445	14,410
1999	705	34,643	10,060
2000	649	37,331	9,645
2001	870	26,566	11,210
2002	641	25350	10,387
2003	836	23,442	14,102
2004	734	23,979	13,346
2005	549	25,252	9,122
Average	750	29,630	12,347

Table 7. Mean number effort-days and landings (mt) of North Pacific albacore made by U.S. commercial fishing vessels by gear type.

1996 – 2005 Mean Effort-Days and Amount Catch by Gear Type for U.S. Commercial Fisheries Landing Albacore

Gear Type	*Effort Days*	*Amount Catch (MT)*
Troll/Bait-boat	29,630	12,347
Hawaii Longline	2,486	1,048
Other Gears (Gillnet, HI Handline, Purse Seine, etc.)	920	106

Table 8. Average relative proportional of total U.S. commercial landings by fishery



FIGURES

Figure 1. Distribution of albacore catch and effort by U.S. West Coast Fishery, 2008.

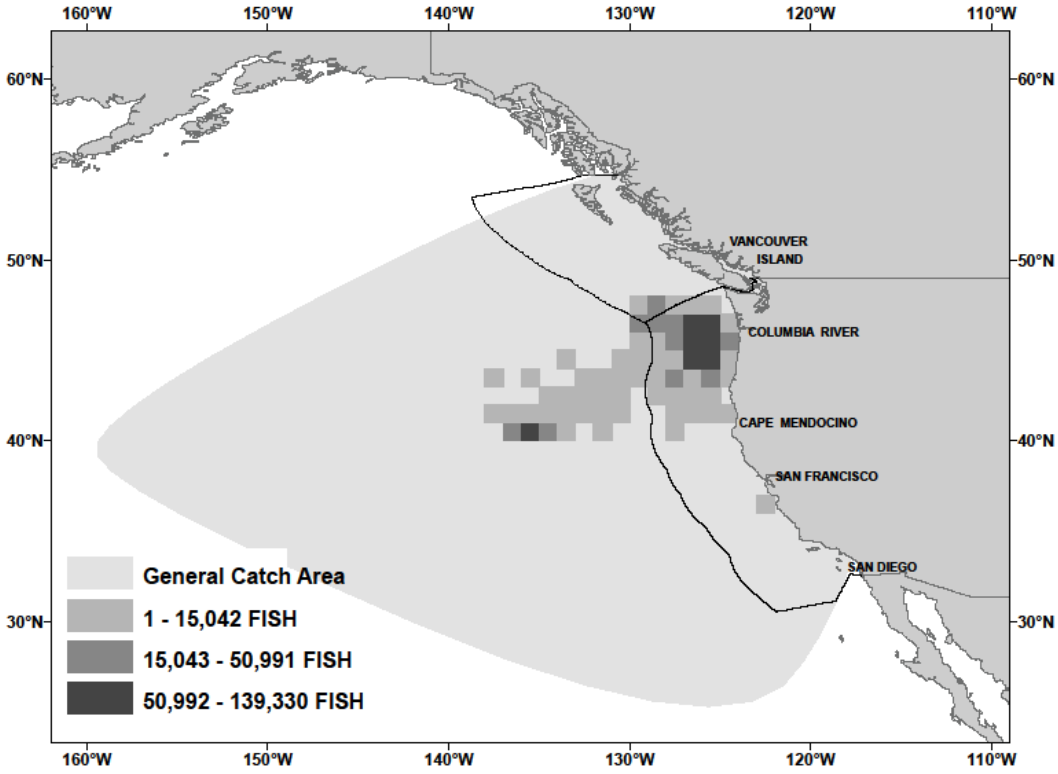


Figure 2a. Annual Canadian total albacore catch and catch made in US EEZ.

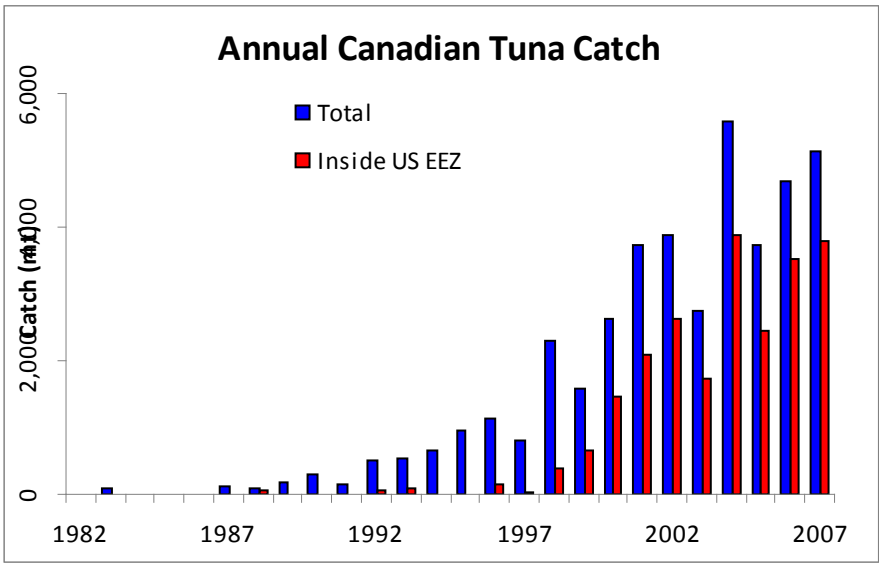


Figure 2b. Value of Canadian total albacore catch and catch made in U.S. EEZ.

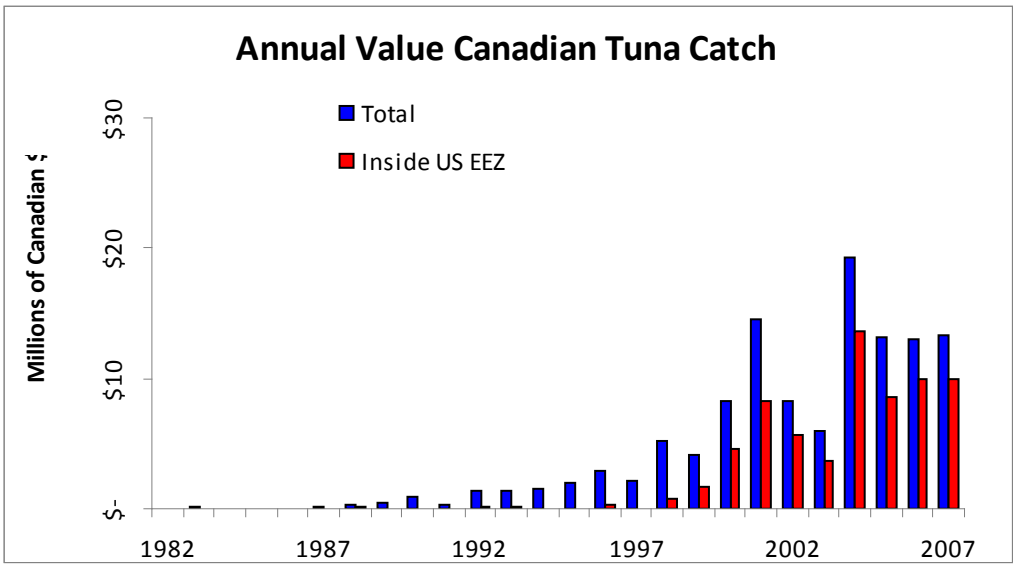


Figure 3. Total annual North Pacific albacore catch by country.

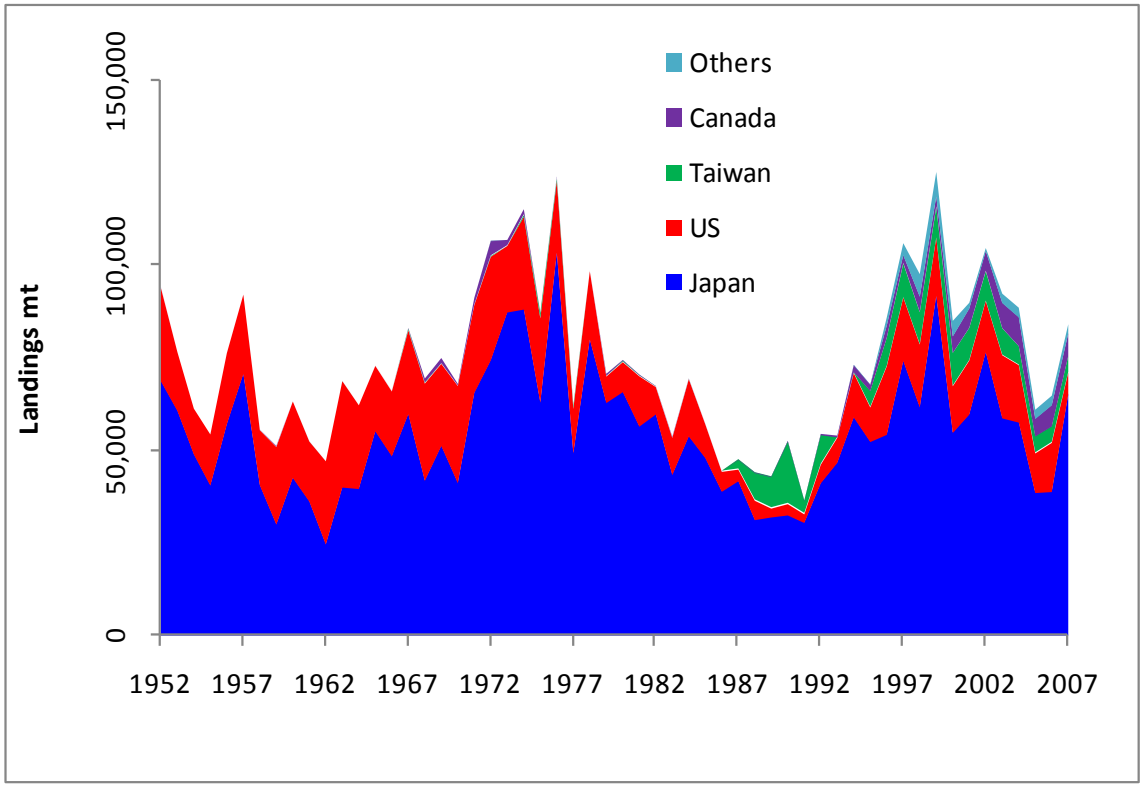
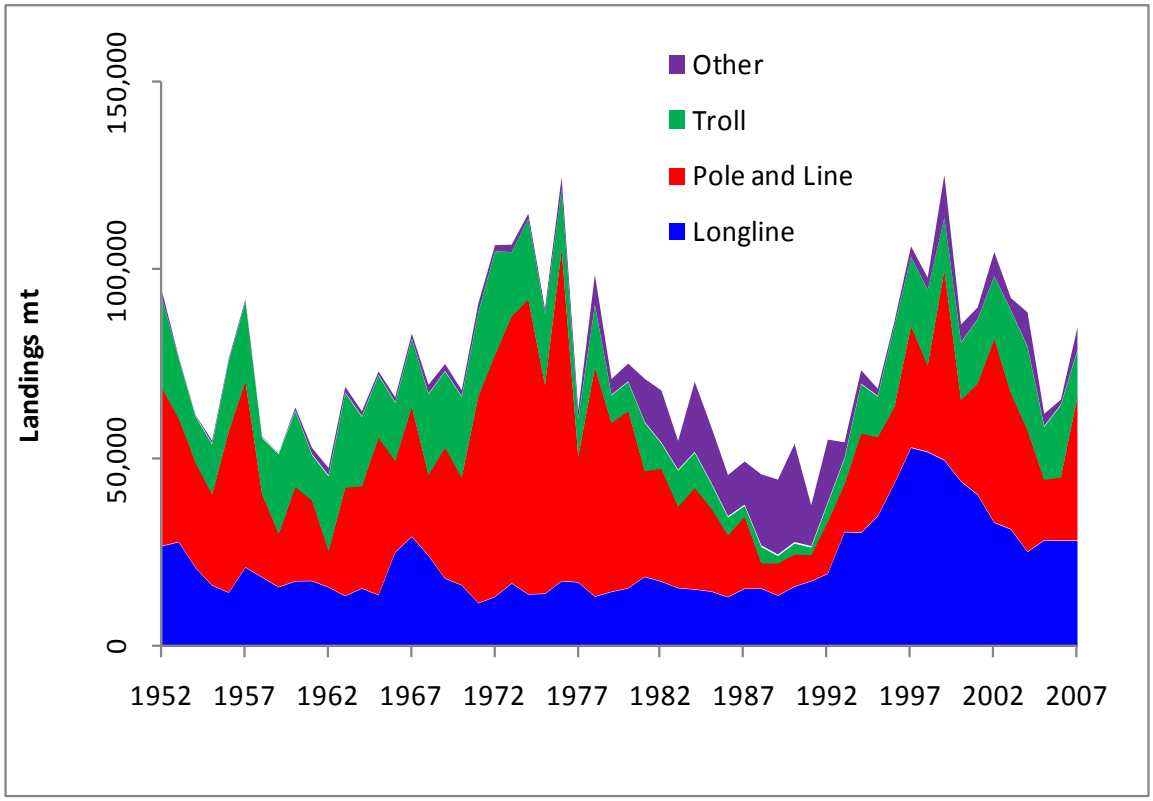


Figure 4. North Pacific albacore catch by gear type.



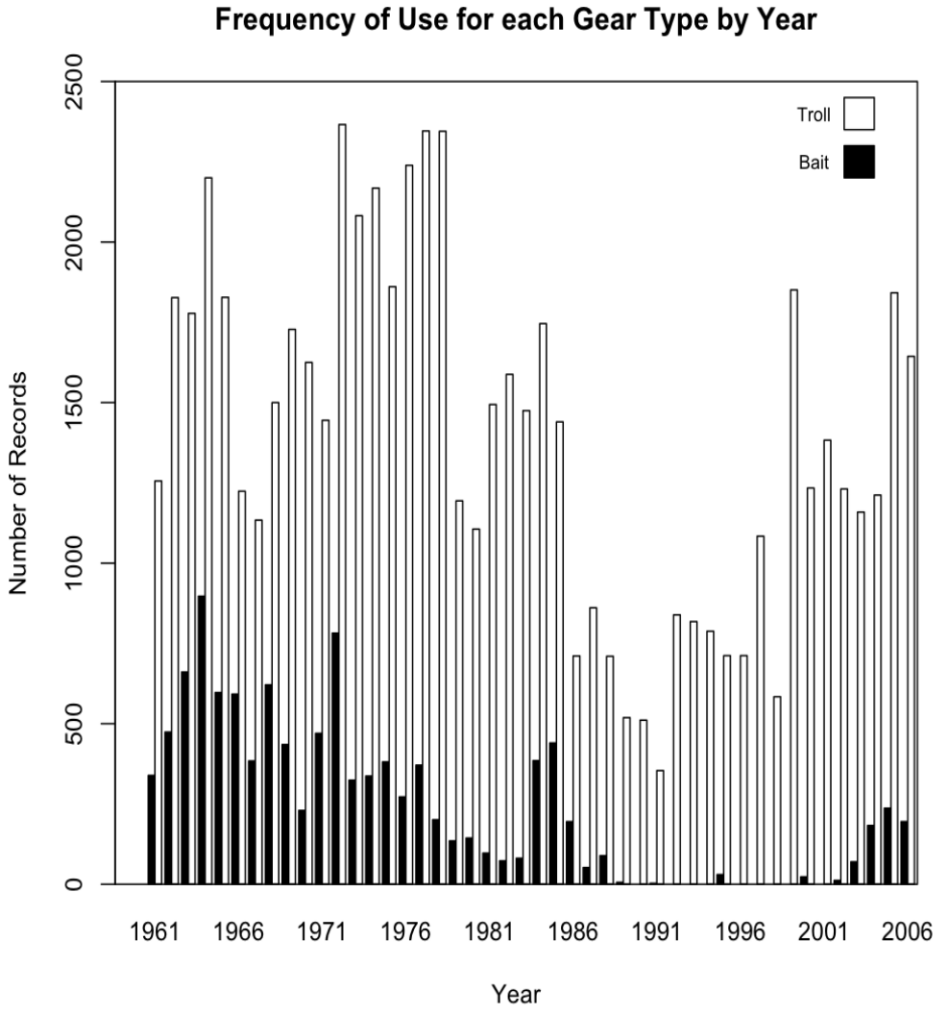


Figure 5. Relative proportion of troll and baitboat vessels in U.S. West Coast Fishery.
Estimated from frequency of logbook records, 1961 – 2006. From Barr (2009).

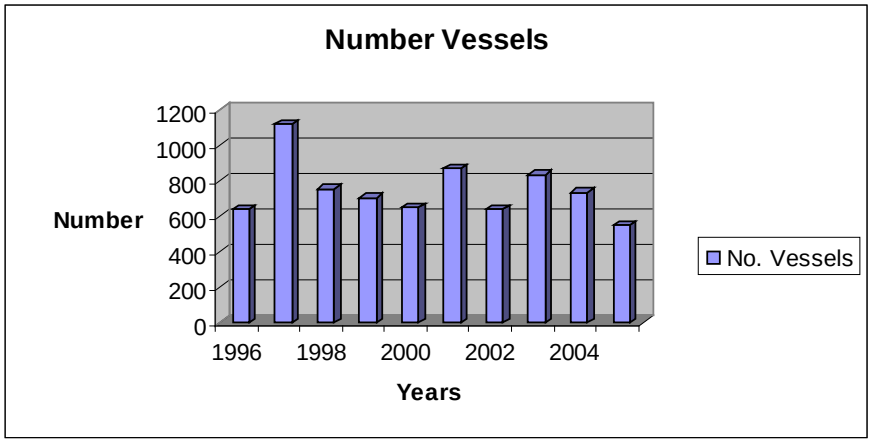


Figure 6a. Number of albacore troll and pole-and-line vessels, 1996 – 2005.

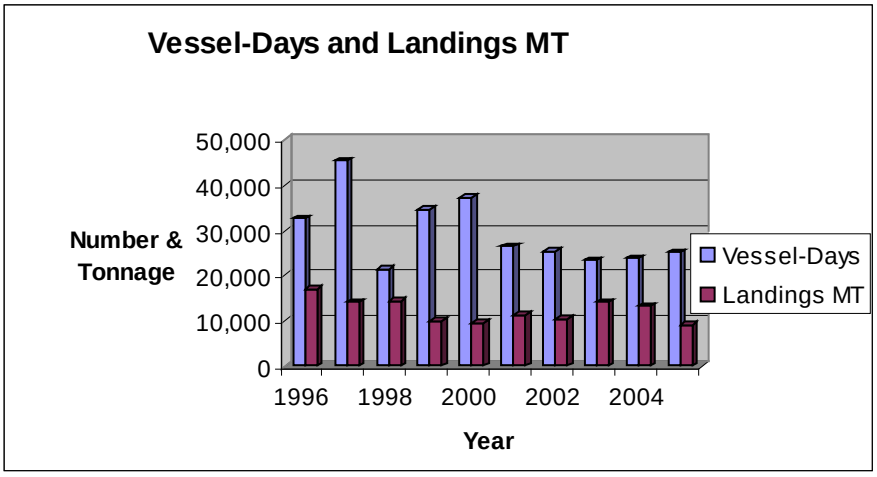


Figure 6b. Number of albacore vessel-days and tonnage, 1996-2005.

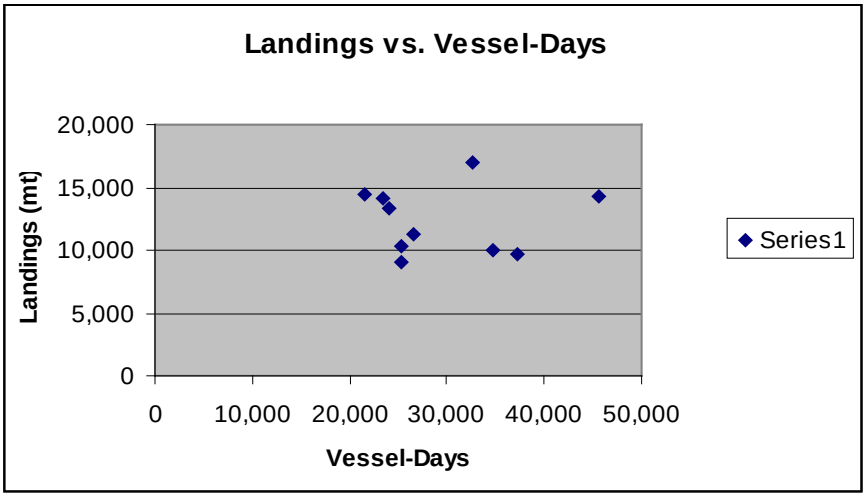


Figure 7. Annual albacore landings vs. vessel-days, 1996 – 2005.

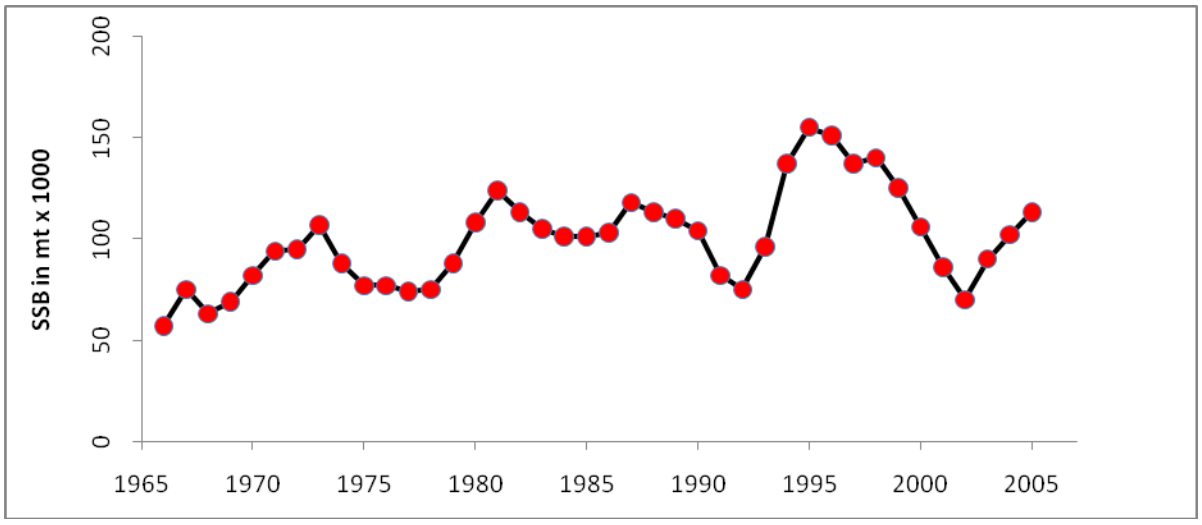


Figure 8a. North Pacific albacore spawning stock biomass.

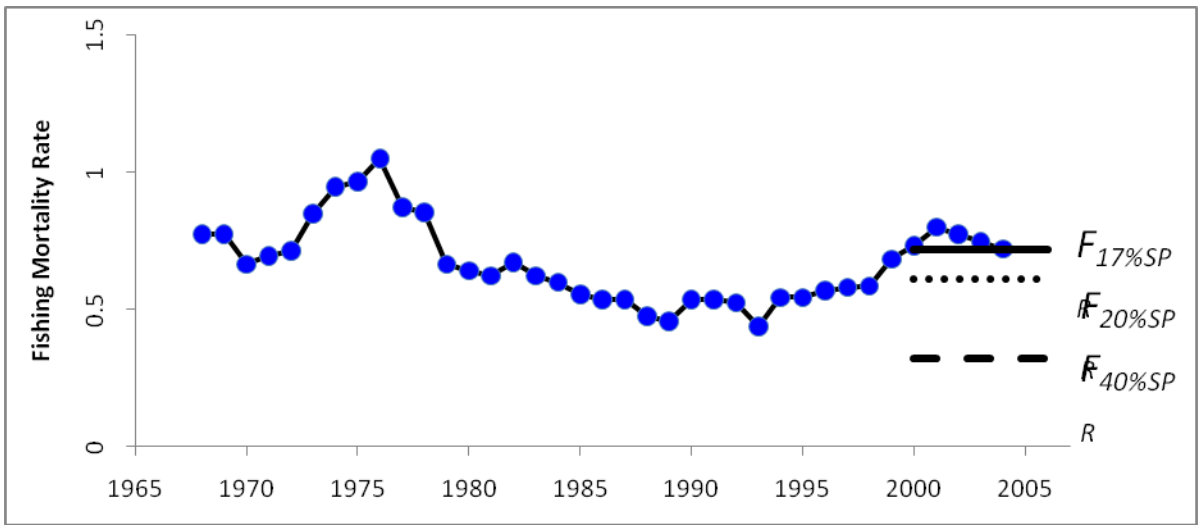


Figure 8b. North Pacific albacore fishing mortality rate.

APPENDIX

A.1 Management Programs Used in Foreign Albacore and Other HMS Fisheries.

Country	Species	Management Plan	Determination	Website
Australia (SBT)	• Southern bluefin tuna	Output controls comprising Individual Transferable Quotas (ITQs). National catch allocations for member countries were determined and set by the CCSBT at its October 2004 meeting. Australia received a national allocation of 5,265 tonnes and AFMA subsequently set the Australian TAC at this level for the 2004-2005 season.	Under the *Southern Bluefin Tuna Management Plan 1995* (the Plan) AFMA must calculate the interim live weight value and the actual live weight value of each Statutory Fishing Right. These values are worked out on the basis of Australia's national catch allocation or provisional national catch allocation, which are determined in accordance with the Plan.	http://www.afma.gov.au/fisheries/tuna/sbt/default.htm
Australia (WTBF)	• Broadbill swordfish • Yellowfin tuna • Bigeye tuna • Albacore tuna	Input control management regime, based on limited entry – ITQs for key species to be implemented under the management plan – expected to occur in early 2007. *Note: I don't see anything more recent than 2005.*	Note: e-mailed contact on 1/5/08 to find out more information.	http://www.afma.gov.au/fisheries/tuna/wtbf/default.htm
Australia (ETBF)	• Yellowfin tuna • bigeye tuna • albacore tuna • broadbill swordfish • Striped Marlin	Under the new Management Plan, input controls, in the form of restrictions on the number of hooks that can be used, are the primary management tool. These controls can be complemented by a range of other tools, including (but not limited to) spatial management and trip limits on certain species.	• Yellowfin tuna: Not overfished, but subject to overfishing. • bigeye tuna: Not overfished, but subject to overfishing. • albacore tuna: not overfished or subject to overfishing" • broadbill swordfish: stock status is uncertain • Striped Marlin: stock status is uncertain Swordfish and albacore fishes are controlled by TACs. The introduction of transferable effort units or catch quotas for the fishery are currently under review by AFMA.	http://www.afma.gov.au/fisheries/tuna/etbf/default.htm http://www.abare.gov.au/publications_html/fisheries/fisheries_08/fisheries_08.html
New Zealand	• Bigeye tuna • Pacific Bluefin tuna • Southern Bluefin tuna • Swordfish	The Quota Management System (QMS) was introduced because it was seen as the best way to: • prevent overfishing, which had reached critical levels in some inshore fisheries; • improve the economic	In the QMS, commercial fishing rights are allocated as individual transferable quota. The main characteristics of quota are: • it is owned by an individual or company (or any other legal entity); • only New Zealanders can own quota for our fisheries; • the right is not created for a fixed term – it is	http://www.fish.govt.nz/en-nz/Publications/Historical+Documents/HMS/Proposed+Management+Framework+for+Tunas+and+Other+Highly+Migra

A.1 Management Programs in Foreign Albacore and Other HMS Fisheries (Cont.).

		efficiency of the fishing industry; and • continue the development of our deepwater fisheries. (See events leading to the QMS)	perpetual; • it secures a fixed percentage of the available resource; • it is fully transferable and divisible; and it is a valuable asset that enables owners to borrow against the quota.	tory+Species.htm?WBCMODE=PresentationUnpublished++&MSHiC=65001&L=10&W=albacore++quota%20&Pre=%3Cspan%20class%3d'SearchHighlight'%3E&Post=%3C/span%3E
New Zealand	• Yellowfin tuna • Albacore • Skipjack	QMS -- Proposed Management Framework for Highly Migratory Species	"These proposals were declined and albacore and skipjack remain non-quota species. Future consideration of their inclusion in the QMS will be incorporated in the development of fisheries plans for these species during 2009[6]" It was concluded that there was **no sustainability risk to albacore** within New Zealand's exclusive economic zone[7]	
France	• South Atlantic Albacore	The South Atlantic albacore is the subject of an ICCAT regulation imposing a TAC and France was assigned a specific quota from the Community quota. The Indian Ocean albacore is not so far the subject of specific regulations, but a restriction of the fishing capacity in terms of number of vessels targeting albacore and swordfish should be adopted this year.		http://ec.europa.eu/fisheries/fleet/index.cfm?method=FM_Reporting.Annual Report
France	• Temperate Tuna	Temperate tuna (albacore): These vessels are declared on the ICCAT list of vessels authorized to fish for tuna restrictions are imposed on the activities of theses vessels by a quota from a larger Community quota, out of a TAC fixed by the ICCAT and on the fishing effort (restriction to 151 vessels) in accordance with ICCAT.		http://ec.europa.eu/fisheries/fleet/index.cfm?method=FM_Reporting.Annual Report

[6] Personal communication with Arthur Hore from the New Zealand Minisrty of Fisheries, January 13, 2009.
[7] The New Zealand Ministry of Fisheries. "Albacore Tuna (ALB) – Initial Position paper." October 1, 2007. para. 4.

A-2. Stock Structure of Albacore Entering West Coast Fisheries

The stock structure of North Pacific albacore that enter the fisheries off the coast of North America has been based historically on locations of spawning, tagging results, or fishery-related biological information. Scofield (1914 and 1914a) reported the discovery of albacore spawning in the area near Guadalupe Island, Baja Mexico and for about five decades it was surmised that albacore spawned in subtropical waters off Mexico and seasonally migrated along the coast to enter the surface fishery along the west coast of California. Tagging studies conducted in the 1950's showed that North Pacific albacore, particularly sub-adults, undertake trans-Pacific migrations (Clemens 1961, Clemens and Craig 1965, Otsu and Uchida 1959, and others). This led to the belief that there is one stock of albacore in the North Pacific (Otsu and Uchida 1959; Clemens 1961; Otsu and Uchida 1963; Clemens and Craig 1965). However there is a large body of evidence summarized in the section that follows, which indicate that albacore entering the U.S. west coast fishery are not a homogeneous stock, but rather are heterogeneous.

A-2.1 Morphometrics

An early preliminary morphometric investigation of albacore caught off Japan, Hawaii, and southern California concluded that albacore caught off California and off Japan are probably distinct and non-intermingling (Godsil 1948). Japanese albacore were characterized by a relatively shorter head and caudal region and longer abdominal or central trunk than specimens from off California. Hawaiian albacore appeared to resemble the Japanese more than California specimens, but there were insufficient Hawaiian samples to justify conclusions. Schaefer (1952) pointed out that there are shortcomings to defining albacore stock structure using morphometric data. However, the validity of findings using this approach is strengthened when considering the scientific evidence provided by other diverse studies.

A-2.2 Size Composition

Brock (1943) suggested that the North American coastal albacore fishery was comprised of two separate and independent groups of fish. He based this premise on the finding that size compositions of albacore landed in Los Angeles, which were caught off southern California, had larger modal peaks than albacore landed in Astoria, Oregon, which were caught off the Pacific Northwest (Brock, 1943). Similar findings where the size compositions of fish caught in coastal waters from the 'southern' and 'northern' areas have different modal peaks have been reported by other investigators, e.g., Laurs and Lynn 1977, Laurs and Wetherall 1981, Wetherall, et al 1987, and recently by Barr who is investigating the variability in the seasonal migration and size composition of albacore in the U.S. coastal fishery. Barr used logbook records and size composition data provided courtesy of the NMFS/SWFSC from the albacore fishery database for the years 1961 – 2006 made similar findings.

A-2.3 Navy Vessel Offshore Albacore Surveys

Based on data from a Navy picket vessel survey data of albacore in waters extending several hundreds of miles off the North American coast, Flittner (1963) postulated that albacore congregate offshore and then split into two migratory components: early arrivals proceed to southern fishery areas off southern and central California and late arrivals turn northward to the coast off Oregon and Washington.

A-2.4 Artificial Radionuclide Concentration in Albacore Livers

Pearcy and Osterberg (1968) found that off Oregon and Washington that levels, as well as specific activities, of the artificial radionuclide Zn-65 in albacore livers sampled increased markedly during summer months. Association of albacore with the effluent of the Columbia River accounted for this enhancement. Zn-65 concentrations of albacore from southern and Baja California were about 10% of those off Oregon and Washington with no seasonal trends evident. Pearcy and Osterberg stated …*"We have no evidence either for immigration of Zn-65 tagged albacore into the southern California fishery or for immigration of southern albacore, with low Zn-65 content, into the northern fishery during one season."*

A.2.5 NMFS/American Fishermen Research Foundation Tagging Studies

Results from tagging studies reported by Laurs and Nishimoto 1979 and summarized in Table 4 in Laurs and Lynn 1991, suggest that at least two subgroups of albacore enter the fishery along the west coast of North America: a 'southern' subgroup south of about 40^{o}N and a 'northern' subgroup north of that latitude. The two subgroups have different migratory patterns, with 'northern' fish making migrations between the eastern and western North Pacific and the 'southern' fish making migrations between the eastern and central North Pacific. There was very little exchange of tagged fish between north and south of 40^{o}N, with less than 1% of fish tagged north of 40^{o}N being recovered south, and vice-versa. About 5% of fished tagged north or south 40^{o}N and recovered after being at liberty one year to three years, were recovered in the opposite area. In previous albacore tagging studies conducted by California Fish and Game during the 1950s, no albacore tagged off Baja or southern California were recovered off Oregon or Washington (Clemens 1961).

A.2.6 Growth Rates

Laurs and Wetherall 1981 found that albacore tagged and released south of 40^{o}N had significantly higher growth rates than albacore tagged north of 40^{o}N. They proposed that the differences in growth rates between the two subgroups likely explain the dissimilarity in the modal peaks of their respective size compositions. They postulated that the slower growth rates of the 'northern' subgroup result from their high energy requirements for the very long migrations across the North Pacific and that less energy may be available for somatic growth, than for the 'southern' subgroup, which undergo much shorter migrations.

A-2.7 Birth-date Distributions

Wetherall et al 1987 estimated birth-date distributions for the 'north' and 'south' albacore by using tag release and return statistics, and growth models computed from the tag data. Each of 521 albacore provided two estimates of its birth date, one based on release length and date and another on corresponding recapture statistics. The findings suggest that the 'north' fish are born primarily during the April-October period, with a peak in July; whereas, the 'south' albacore appear to be born mostly during the November-June period, with a peak in February.

A-2.8 Migration Patterns by Age at Release

Wetherall et al 1987 noted that the general variation in tag return patterns between albacore tagged inshore of 145^{o}W in the 'north' and 'south' zones provide interesting results when analyzed by age group. Most of the albacore in the 60 – 70 cm range at time of tagging were made in subsequent years in the area of release. Recaptures from fish in the 70 – 80 cm range and the 80 – 90 cm range when tagged were made in increasingly higher proportion away from their area of release, with a greater percentage coming from the central and western Pacific fisheries. However, albacore in the largest size class and tagged in the 'north' area of the eastern Pacific had a much greater rate of recapture in the western Pacific than their 'south' counterparts. The latter were still recaptured mainly in the region where they were released, or offshore east of the Dateline. This apparent difference in migration behavior of the larger albacore is particularly interesting because these are mature fish. This difference suggests the possibility of separate spawning areas.

A-2.9 Fisheries and Stock Structure

The tagging data demonstrate that the two proposed subgroups are for the most part harvested by different fisheries. Fish north 40^{o}N, which make trans-Pacific migrations between eastern and western North Pacific, are harvested by the U.S. troll/pole-and-line fishery north of 40^{o}N and the Japanese baitboat and Asian longline fisheries west of the Dateline. Whereas, fish south 40^{o}N, which make migrations between the eastern and central North Pacific, are fished on by the U.S. troll/pole-and-line fishery south of 40^{o}N and the Asian and Hawaii longline fisheries east of the Dateline.

A-2.10 Length of Fishing Season and Catch Rates

Preliminary findings made by Barr (in prep.) show that the 1) distribution and spatial range of the fishery oscillates between the north and south areas over periods lasting about a decade or more; 2) average season length in northern area is 96 days and in the southern area is 146 days; 3) average annual catch per day (CPUE) is 77.6 and 48.2 fish/day north and south of 40^{o}N, respectively; and 4) the average CPUE during peak months of the fishing season is higher in the northern area than in the southern area Figure 2). The results are compatible with the proposed stock heterogeneity of albacore entering the coastal waters of North America.

A-2.11 Research Needed

Information gathered from a broad range of sources indicates that a better understanding of the possibility of stock heterogeneity of North Pacific albacore may be needed to effectively manage the resource. Appropriate genetic studies are required to further investigate the likelihood that two subgroups of albacore enter the U.S. albacore fishery. In addition, stock assessments of North Pacific albacore, which have assumed a single stock, need to be evaluated regarding the likelihood of albacore stock heterogeneity. It may be found that it is necessary to structure management actions for specific fisheries and/or segments of fisheries.

Consultation and Coordination

Information used in the preparation of this report has been obtained from interviews and correspondence with fisheries scientists, managers, and representative members of the albacore fishing industry. A listing of persons and their affiliation includes:

National Marine Fisheries Service Southwest Fisheries Science Center: John Childers, Paul Crone, Sam Herrick, Roger Hewett, Suzy Kohin, Gary Sakagawa, Dale Squires, and Russ Vetter. In addition, a seminar related to the report was presented by RML at the Southwest Fisheries Science Center where there was much discussion from Center and IATTC fisheries scientists.

National Marine Fisheries Service Southwest Regional Office: Craig Heberer, Mark Helvey, Katie Hodges, Corrine Pinkerton, and Heidi Taylor.

U.S. Albacore Fishing Industry representatives and fishers: Chip Bissell, August Felando, Peter Flournoy, Kathy Fosmark, Steve Fosmark, Wayne Heikkila, John LaGrange, Jack Webster, and Natalie Webster. A seminar related to the report was presented by RML to the 2009 annual meeting of the Western Fishboat Owners Association where there was much discussion from albacore fishers, albacore processors, and albacore support industry representatives.

The report was also presented by RML and JEP at joint meetings of the Pacific Fishery Management Council Highly Migratory Management Team (HMS/MT) and Advisory Subpanel (HMS/SAP) in June 2009 and November 2009; and the Science and Statistical Committee (SSC) and full Council in November 2009. Oral and written comments were received from participants at the HMS/MT&ASP; oral comments were received from the SSC and full Council.

Oregon State University College of Ocean and Atmospheric Science: Mac Barr, Lorenzo Ciannelli, William Pearcy, and Jason Phillips. In addition, a seminar related to the report was given at OSU by RML where there was much discussion with academic marine scientists.

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INFORMATION ON PARTICIPATION IN THE WEST COAST POLE (BAITBOAT) AND TROLL ALBACORE SURFACE FISHERY RELATIVE TO CONSIDERATION OF FISHING EFFORT LIMITATION

Albacore Landings and Fishery Participation for Vessels with Pole/Troll Albacore Catch

PacFIN vessel summary files for 2004-2008 were used to examine participation in the west coast albacore troll fishery. Non-Tribal commercial vessels were selected. However, Canadian vessels were not excluded. From these vessels those with albacore landings with pole (baitboat) or troll gear were selected (using the PacFIN GRID values of POL and TRL).

Vessel Participation Measured by Landings

Table 1 categorizes vessels according to the proportion of their total landings (all species, all gear types) that are pole/troll caught albacore. Table 2 shows comparable data in terms of revenue.[1]

Figures 1 and 2 present this information graphically. The distribution of the number of vessels (the line in the figures) across the landings categories is generally U-shaped. What is immediately apparent is the large number of vessels where albacore accounts for less than 10 percent of their total landings and a second, slightly smaller category of vessels with greater than 90 percent of their catch comprising pole/troll albacore. The first category of vessels accounts for only 4 percent of all albacore landings over the time period (but 7 percent of albacore revenue). They may be vessels that either participate very occasionally in the fishery or entered the fishery for a brief period. The second category clearly comprises full-time participants in the fishery. They account for 52 percent of albacore landings and 49 percent of revenue. This leaves the largest fraction of vessels spanning the middle categories representing increasing specialization. These vessels account for 39 percent of total albacore landings and 32 percent of total albacore revenue.

Another way of looking at this data is to consider vessels for which albacore comprises more than 50 percent of their total landings. This could be one way to distinguish “full time” from “part time” fishery participants. (This would be similar to the analytical distinction made between “directed” and “incidental” groundfish vessels, although the distinction is measured at the trip level.) They comprise 45 percent of all vessels but 82 percent of total landings. In terms of revenue, 36 percent of the vessels have albacore as 50 percent or more of their revenue and those vessels account for 73 percent of total revenue of all the vessels in the data set.

[1] Note that the total number of vessels in the two tables does not match. The discrepancy (5 vessels) may result from missing price information in the summary data.

Table 1. Summary of pole/troll albacore landings expressed as a percent of total landings. (In total row, value for average albacore landings is average for all vessels).

Albacore, % total landings	No. vessels	No. of vessel as % total	Total catch for bin	Landings for vessel category as % of total landings	Average albacore landings per vessel
≤10%	446	34%	2546.65	4%	5.71
11-20%	115	9%	2139.19	4%	18.60
21-30%	91	7%	2980.00	5%	32.75
31-40%	65	5%	2966.44	5%	45.64
41-50%	60	5%	2469.73	4%	41.16
51-60%	48	4%	3378.24	6%	70.38
61-70%	45	3%	3492.78	6%	77.62
71-80%	42	3%	4408.16	7%	104.96
81-90%	42	3%	3613.56	6%	86.04
91-100%	356	27%	30902.57	52%	86.80
TOTAL	1310		58897.33	100%	44.96

Table 2. Summary of pole/troll albacore revenue expressed as a percent of total revenue.

Albacore, % total landings	No. vessels	No. of vessel as % total	Total revenue for bin	Revenue for vessel category as % of total landings	Average annual albacore revenue per vessel
≤10%	558	43%	$ 8,720,199.43	7%	$ 3,125.52
11-20%	133	10%	$ 8,373,808.09	7%	$ 12,592.19
21-30%	83	6%	$ 6,682,779.64	5%	$ 16,103.08
31-40%	60	5%	$ 8,663,973.95	7%	$ 28,879.91
41-50%	42	3%	$ 6,534,897.97	5%	$ 31,118.56
51-60%	29	2%	$ 8,078,555.95	7%	$ 55,714.18
61-70%	22	2%	$ 2,163,283.75	2%	$ 19,666.22
71-80%	30	2%	$ 6,770,194.54	6%	$ 45,134.63
81-90%	20	2%	$ 5,855,404.28	5%	$ 58,554.04
91-100%	328	25%	$ 60,481,174.13	49%	$ 36,878.76
TOTAL	1305		$ 122,324,271.73	100%	$ 18,747.01

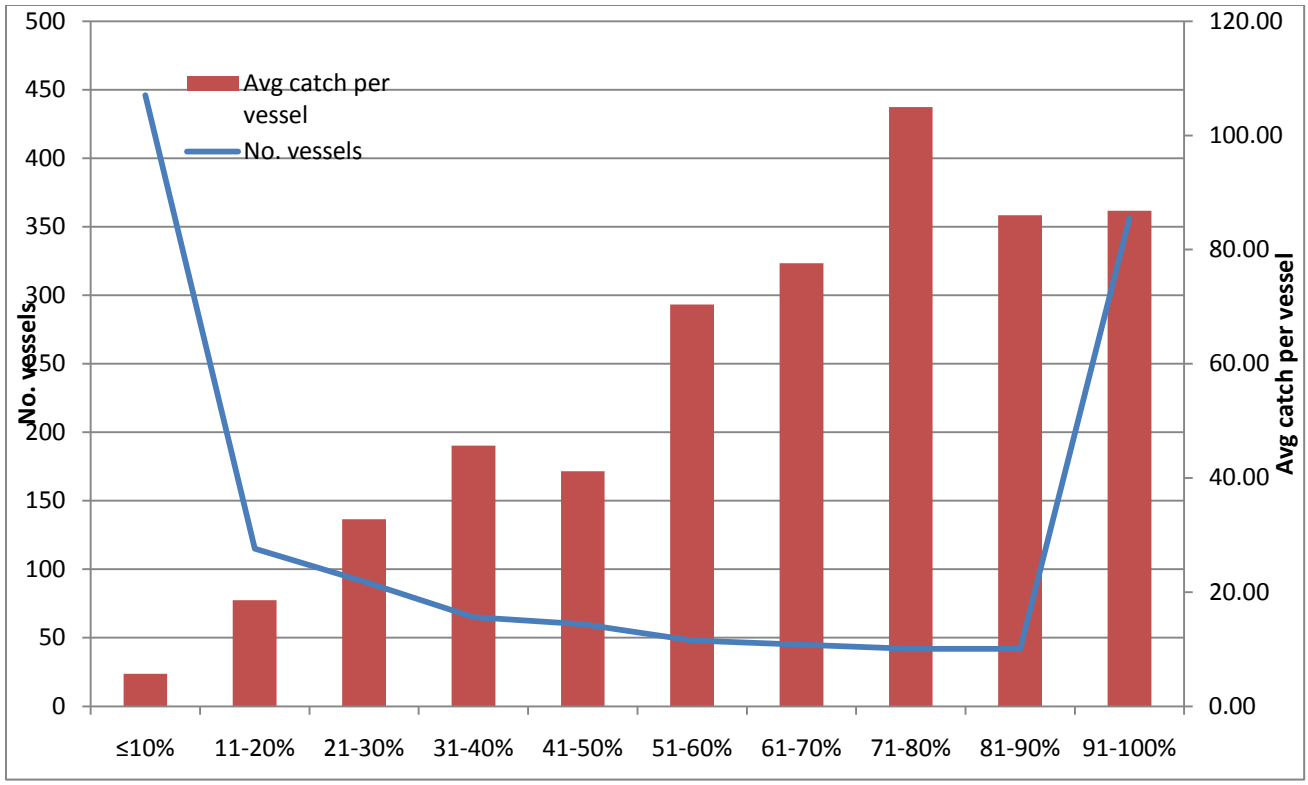

Figure 1. Number of vessels and average landings categorized by troll/pole caught albacore as a proportion of total landings for each vessel.

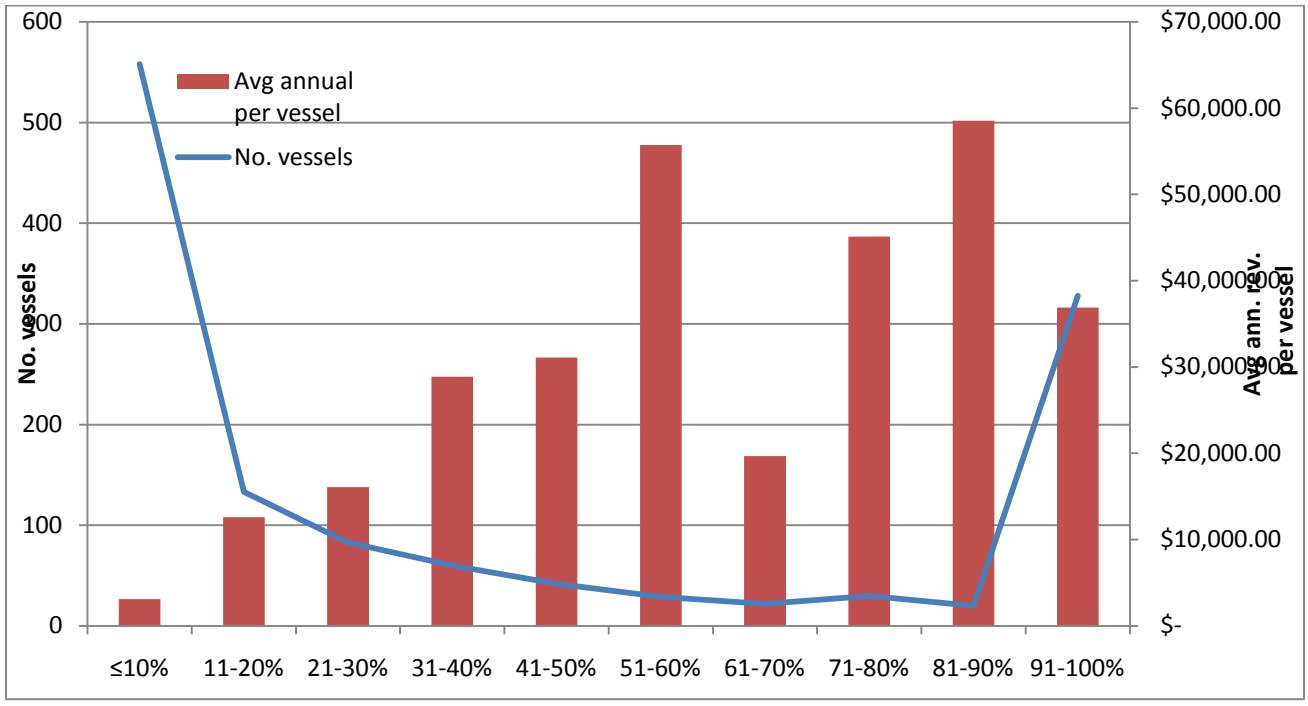

Figure 2. Number of vessels and average annual revenue categorized by troll/pole caught albacore as a proportion of total revenue for each vessel.

Participation in Other Fisheries by Vessels with Troll/Pole Caught Albacore

Another way to look at participation is to see what other fisheries vessels with pole/troll albacore catch participate in. This was done by identifying which combination of gear type (Pacfin code GRID) and species represents the largest proportion of the vessel's landings or revenue. Species were identified at the management group level (PacFIN code MGRP) except albacore, which is reported separately from the other HMS management unit species (other species in the group are categorized as "Other HMS"). The number of vessels in each of these "primary fishery" gear-species combinations was counted along with tabulating information on their landings and revenue. The results are shown in Table 3 for landings and Table 4 for revenue. In addition to the number of vessels, the tables show albacore landings by pole and troll gear and these landings as a percent of landings of all species for the primary fishery category. For confidentiality reasons primary fishery categories with three or less vessels are combined into a single category labeled "remainder."

In the tables the primary fishery categories are ranked from largest to smallest in terms of the number of vessels in the category. It can be seen that, not surprisingly, the troll-caught albacore primary fishery category has the largest number of vessels, accounting for about 41 percent of all the vessels when categorized by landings and 33 percent when categorized by revenue. These vessels account for 79 percent of troll/pole caught albacore landings and 71 percent of albacore revenue. For the albacore troll primary fishery, troll-caught albacore accounts for 83 percent of total catch by weight and value. Counted by number of vessels, other primary fisheries that are major participants in the albacore fishery include salmon troll and crab pots. However, measured by albacore landings and revenue they account for less than a fifth of the total

Table 5 shows, for vessels whose primary fishery is troll albacore, either in terms of landings or revenue, what gear-species combinations accounted for their total catch by weight and revenue. All combinations greater than 1 percent of the total are shown; the rest of the categories are grouped in the "remainder" row. The distribution of gear-species combinations within the troll albacore primary fishery category is similar to the distribution of primary fishery categories across all vessels catching troll/pole albacore: troll albacore, crab pot, and salmon troll account for the top three combinations.

Table 3. Primary fishery (gear-species combination) by landings (mt), ranked by number of vessels.

Primary Fishery by Landings	No. Vessels	Pct. All Vessels	Albacore Landings				Albacore Landings as a Pct of Total Landings in Primary Fishery		
			Pole Albacore	Troll Albacore	Total	Pct of Albacore Caught by All Vessels	Pole Albacore	Troll Albacore	Both
Troll: Albacore	534	40.8%	1,304.89	44,919.26	46,224.15	78.5%	2.4%	83.2%	85.6%
Crab Pot: Crab	255	19.5%	2.81	6,513.64	6,516.46	11.1%	<0.1%	12.5%	12.5%
Troll: Salmon	175	13.4%	21.15	415.17	436.31	0.7%	0.8%	15.8%	16.6%
Crab/Lobster Pot: Crab	106	8.1%	265.27	2,444.33	2,709.60	4.6%	1.5%	13.4%	14.8%
Longline: Groundfish	30	2.3%	0.26	212.44	212.70	0.4%	<0.1%	5.7%	5.7%
Other Hook And Line: Gfish	22	1.7%	0.00	15.88	15.88	<0.1%	0.0%	6.5%	6.5%
Pole (Commercial): Other	21	1.6%	5.90	0.19	6.09	<0.1%	13.1%	0.4%	13.5%
D. Rig Shrimp Trawl: Shrimp	18	1.4%	2.20	760.21	762.42	1.3%	<0.1%	3.1%	3.1%
Roller Trawl: Groundfish	18	1.4%	0.00	259.49	259.49	0.4%	0.0%	1.2%	1.2%
Pole (Commercial): Albacore	17	1.3%	14.67	1.14	15.81	<0.1%	67.3%	5.2%	72.6%
Pole (Commercial): Groundfish	14	1.1%	2.32	2.19	4.51	<0.1%	2.1%	2.0%	4.1%
Fish Pot: Other	9	0.7%	3.12	135.75	138.87	0.2%	0.2%	8.5%	8.7%
Midwater Trawl: Groundfish	9	0.7%	0.00	42.26	42.26	0.1%	<0.1%	<0.1%	<0.1%
Fish Pot: Groundfish	8	0.6%	1.53	8.63	10.15	<0.1%	1.3%	7.3%	8.5%
S. Rig Shrimp Trawl: Shrimp	8	0.6%	0.00	341.88	341.88	0.6%	0.0%	6.9%	6.9%
Crab/Lobster Pot: Other	7	0.5%	2.79	6.62	9.41	<0.1%	1.9%	4.5%	6.4%
DGN: Other HMS	7	0.5%	4.79	113.54	118.33	0.2%	0.5%	12.1%	12.6%
Flatfish Trawl: Groundfish	6	0.5%	0.40	65.09	65.50	0.1%	<0.1%	1.8%	1.8%
Groundfish Trawl: Groundfish	6	0.5%	24.31	208.64	232.94	0.4%	0.3%	2.6%	3.0%
Pole (Commercial): Other HMS	6	0.5%	2.29	0.00	2.29	<0.1%	24.3%	0.0%	24.3%
Dip Net: CPS	5	0.4%	23.29	113.15	136.44	0.2%	1.4%	6.7%	8.1%
Seine: CPS	5	0.4%	9.42	87.81	97.23	0.2%	0.1%	0.7%	0.8%
Other: Other HMS	4	0.3%	0.59	0.00	0.59	<0.1%	0.5%	0.0%	0.5%
Remainder	20	1.5%	1304.89	526.444	538.03	0.9%	0.1%	3.3%	3.4%
Total	1310		1,703.58	57,193.76	323,206.47				

Table 4. Primary fishery (gear-species combination) by revenue ($), ranked by number of vessels.

Fishery	No. Vessels	Pct. All Vessels	Albacore Revenue: Pole Albacore	Albacore Revenue: Troll Albacore	Albacore Revenue: Total	Pct of Albacore Caught by All Vessels	Albacore Revenue as a Pct. of Total Revenue in Primary Fishery: Pole Albacore	Troll Albacore	Both
Troll: Albacore	426	32.6%	$ 2,405,357	$ 83,485,381	$ 85,890,738	70.5%	2.4%	83.1%	85.5%
Crab Pot: Crab	287	22.0%	$ 6,203	$ 20,210,027	$ 20,216,230	16.6%	<0.1%	8.4%	8.4%
Troll: Salmon	257	19.7%	$ 95,862	$ 3,855,970	$ 3,951,832	3.2%	0.4%	15.2%	15.6%
Crab/Lobster Pot: Crab	114	8.7%	$ 650,289	$ 7,357,098	$ 8,007,387	6.6%	0.8%	9.4%	10.2%
Longline: Groundfish	31	2.4%	$ 640	$ 625,631	$ 626,271	0.5%	0.0%	4.5%	4.5%
Other Hook and Line: Gfish	21	1.6%	$ -	$ 43,608	$ 43,608	<0.1%	0.0%	5.0%	5.0%
Pole (Commercial): Albacore	20	1.5%	$ 60,810	$ 4,019	$ 64,828	0.1%	60.7%	4.0%	64.7%
Pole: Other	19	1.5%	$ 7,537	$ 6,938	$ 14,475	0.0%	3.0%	2.7%	5.7%
Roller Trawl: Groundfish	17	1.3%	$ -	$ 537,436	$ 537,436	0.4%	0.0%	1.8%	1.8%
Pole (Commercial): Gfish	12	0.9%	$ 6,722	$ 6,294	$ 13,016	<0.1%	1.4%	1.3%	2.7%
Crab/Lobster Pot: Other	11	0.8%	$ 10,406	$ 7,880	$ 18,287	<0.1%	0.3%	0.2%	0.5%
D. Rig Shrimp Trawl: Shrimp	11	0.8%	$ 3,643	$ 323,906	$ 327,549	0.3%	<0.1%	1.5%	1.5%
DGN: Other HMS	10	0.8%	$ 93,676	$ 580,477	$ 674,153	0.6%	2.1%	13.2%	15.3%
Pole: Other HMS	8	0.6%	$ 17,385	$ -	$ 17,385	<0.1%	23.1%	0.0%	23.1%
Fish Pot: Groundfish	6	0.5%	$ 781	$ 11,442	$ 12,223	<0.1%	0.4%	5.7%	6.1%
Fish Pot: Other	6	0.5%	$ 6,921	$ 236,769	$ 243,690	0.2%	0.4%	12.7%	13.0%
Other: Other HMS	6	0.5%	$ 3,736	$ 14,993	$ 18,729	<0.1%	0.6%	2.2%	2.8%
S. Rig Shrimp Trawl: Shrimp	6	0.5%	$ -	$ 177,486	$ 177,486	0.1%	0.0%	4.2%	4.2%
Dip Net: CPS	5	0.4%	$ 40,950	$ 210,975	$ 251,925	0.2%	3.1%	16.1%	19.2%
Groundfish Trawl: Gfish	5	0.4%	$ 30,388	$ 469,278	$ 499,665	0.4%	0.3%	5.0%	5.3%
Midwater Trawl: Groundfish	5	0.4%	$ -	$ 10,654	$ 10,654	<0.1%	0.0%	0.1%	0.1%
Seine: CPS	4	0.3%	$ 11,765	$ 149,548	$ 161,313	0.1%	0.2%	2.6%	2.8%
Remainder	17	1.3%	$ 45,306	$ 499,961	$ 545,266	0.4%	0.1%	1.3%	1.4%
Total	1305	100.0%	$ 3,498,501	$ 118,825,771	$ 122,324,272				

Table 5. Landings (mt) and revenue ($) from fisheries for vessels whose primary fishery is troll albacore by landings (left columns) or revenue (right columns).

For Troll Albacore Primary Fishery by Landings				For Troll Albacore Primary Fishery by Revenue		
Gear: Species	Landings	Percent		**Gear: Species**	Revenue	Percent
Troll: Albacore	44919.26	83.2%		**Troll: Albacore**	$ 83,485,381.46	83.1%
Crab Pot: Crab	2911.36	5.4%		**Troll: Salmon**	$ 4,930,841.08	4.9%
Troll: Salmon	1666.47	3.1%		**Crab Pot: Crab**	$ 2,650,356.33	2.6%
Crab/Lobster Pot: Crab	1623.22	3.0%		**Pole (Commercial): Albacore**	$ 2,405,357.01	2.4%
Pole (Commercial): Albacore	1304.89	2.4%		**Crab/Lobster Pot: Crab**	$ 2,304,215.41	2.3%
DGN: Other HMS	633.62	1.2%		**DGN: Other HMS**	$ 1,904,058.76	1.9%
Remaining Combinations	916.67	1.7%		**Remaining Combinations**	$ 2,816,554.89	2.8%

This data provides context for the tables and figures shown above for the distribution of vessels by albacore in their total catch. There are a large number of vessels (60-70 percent depending on whether considering landings or revenue) that have some other fishery as their "primary" fishery as defined here. By the same token, vessels in the albacore troll primary fishery participate in other fisheries (defined by gear-species combinations). The top-ranked primary fisheries suggest a portfolio strategy where the vessels in these three primary fisheries (albacore troll, salmon troll, and crab pot) also spend part of their time in one or the other (or possibly both) of these fisheries. The fact that salmon troll uses similar gear and the crab fishery mainly occurs at different time of year lends operational support to such a portfolio strategy. Nonetheless, most of the albacore landings and revenue comes from vessels whose primary fishery is troll albacore. Comparing Table 1 and Table 3 we can see that there are 398 vessels where albacore comprises 80 percent or more of their landings and 534 vessels in the primary fishery. This probably brackets the range of what could be considered "full time" albacore troll vessels. Albacore pole vessels account for a much smaller proportion of the makeup of the fishery. By landings there are 17 vessels categorized in the pole albacore primary fishery and their landings make up a tiny proportion of total albacore landings. Looking at the albacore troll primary fishery, 2.4 percent of their total landings was pole albacore.

Information on Participation in the Albacore Poll/Troll Fishery Relative to the March 9, 2000, HMS Control Date

PacFIN data was queried to derive a list of vessels that made at least one albacore landing with HMS pole or troll gear types (see Table 4-53 in the 2009 HMS SAFE) in the years 1990-2009. (Note that 2009 data may be provisional at the time of the PacFIN data download, 3/1/10. Only non-tribal vessels were counted, but Canadian vessels were not excluded from the data set.) This time period was chosen so that an equal number of years were examined before and after the March 9, 2000 HMS controls date.

First, we compare the 10-year periods 1990-1999 and 2000-2009 (see Table 6). There are 2,649 vessels that made a landing in at least one of the years 1990-2009. Of these, 911 or 34 percent, made a landing 1990-1999 but made no landings 2000-2009; 773, or 29 percent, made a landing in 2000-2009 but no landings in 1990-1999. There were 965 vessels, or 36 percent, that made at least one landing in both periods.

Looking at the 10 years before the control date (e.g. 1990-1999) could introduce a bias since there is likely to be a natural attrition out of the fishery over time, so participation in those earlier years may be less relevant to the make-up of the fishery today. To address this we can also look at just the participation in the two 5-year periods surrounding the control date (1995-1999 and 2000-2004). There were 2,125 vessels that made a landing in at least one of these 10 years. Of these, 713 vessels, or 34 percent, made a landing in the 1995-1999 period but no landings in the 2000-2004 period; 549, or 26 percent, made a landing in the 2000-2004 period but no landings in the 1995-1999 period. Finally, 853 vessels, or 40 percent made a landing in at least 1 year in both periods.

Table 6. Number of vessels participating in the albacore pole/troll fishery before and after the control date, based on landings.

	1990-2009	1995-2004
Landings in first half of period only	911 (34%)	713 (34%)
Landings in second half of period only	773 (29%)	549 (26%)
Landings in both first and second half of period	965 (36%)	853 (40%)
Total no of vessels for period	2,649	2,115

It is interesting to note that the relative proportions are very similar for either the longer or shorter time periods. To simplify, about a third of vessels made landings both before 2000 and in 2000 or later years, a third in the earlier years but not the later years, and a third in the later years but not the earlier years. At this aggregate level, this suggests changing the control date would have relatively little effect. In the comparisons, those vessels with landings only in the later period might be considered "new entrants" while those with landings only in the earlier period might be considered "attrition." In the aggregate these two groups are close to canceling each other out ("new entrants" replace "attrition"). Looking at the 1990-2009 period, for example, 1,876 vessels made landings before 2000 and 1,738 vessels in 2000 and later, a net decline of 138. Since control dates are considered a warning that participation after the date might not count towards qualification for a permit it does not seem like a more recent control date would have much effect on qualification, all other factors being equal.

Figure 3 shows number of vessels with landings and total albacore landings for the west coast surface fishery from 1990 to 2008. It can be seen that overall participation has declined since 2000, from 761 vessels to 517 vessels in 2008. However, landings have increased from 8,098 mt in 2000 to 9,739 mt in 2008. On the other hand, landings were lowest in 2000 for the time series from 1996 onwards. Although there was an uptick in participation in 2001, the overall time series suggests that the control date has not had a discernable effect on participation in terms of "speculative" entry into the fishery.

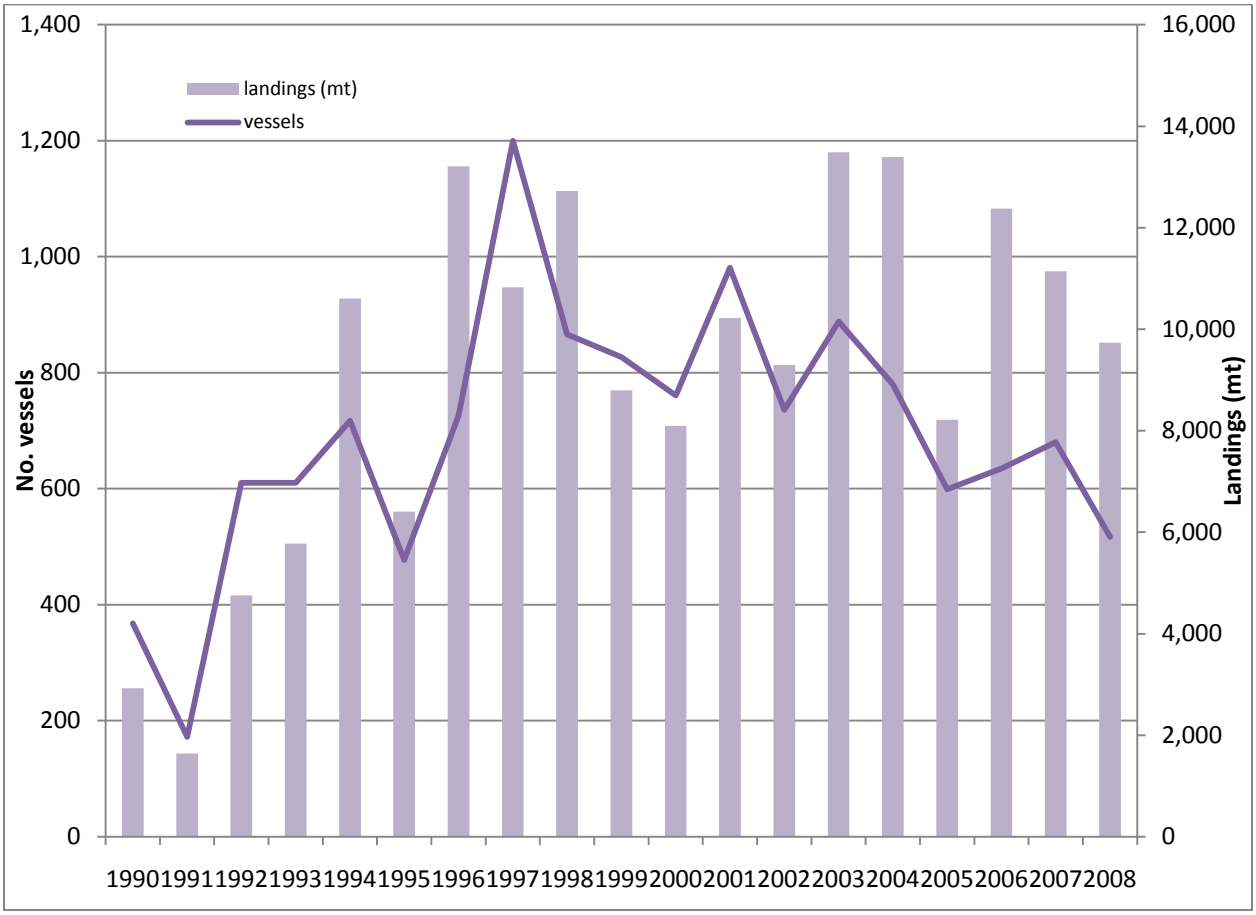

Figure 3. Number of vessels and landings in the albacore surface hook-and-line (troll and baitboat) fishery, 1990-2008; landings by Canadian vessels excluded (Source: HMS SAFE, Tables 4-9 and 4-55).

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT ON CONSIDERATION OF EFFORT LIMITATION IN THE ALBACORE TUNA FISHERY

Introduction

As an outcome of deliberations over the Laurs-Powers North Pacific Albacore White Paper at its November 2009 meeting, the Council directed the Highly Migratory Species Management Team (HMSMT) to look into "relevant matters" and information needs for the Council to consider related to limit fishing effort in the west coast North Pacific albacore (NPA) fishery. The Council provided guidance to the HMSMT to gather information that could support formal consideration at a future Council meeting. The Council also scheduled consideration of changing the current control date of March 9, 2000, at its April 2010 meeting. The HMSMT met in La Jolla, California on February 23-25 to review the Albacore White Paper and to compose a list of potential issues relevant to the Council's charge.

The HMSMT began compiling and analyzing information in response to the Council's directions. This report describes our progress and offers initial comments, organized as follows:

- Review of the North Pacific Albacore "White Paper"
- Issues Related to Limiting Effort in the Albacore Fishery
- Considerations for Changing the Current March 9, 2000 Control Date
- Appendix 1: Additional Information Relative to Participation in the West Coast Albacore Fishery
- Appendix 2: Preliminary Catalog of Data Types Needed to Develop a Limited Access/Limited Access Privilege Program

Review of the North Pacific Albacore "White Paper"

The HMSMT reviewed the final version of the White Paper which was submitted to the National Marine Fisheries Service (NMFS) Southwest Region in early 2010 and discussed the status of comments the joint HMSMT-HMS Advisory Subpanel (HMSAS) compiled and submitted to the authors after their presentation on October 31, 2009. The HMSMT notes that several of these comments were incorporated into the final White Paper and commends the authors for these revisions.

However, there are several key issues and concerns that were left unresolved in the White Paper. These would need to be considered should the Council decide to direct the HMSMT to begin the process of gathering the relevant information to support development of future management options to limit effort. These include:

1. Compiling past and present information for non-U.S. NPA fisheries/fleets (e.g., Japan, China, Taiwan, Canada) including catch and effort statistics; participation trends; pertinent management and regulatory actions; and monitoring, compliance, and enforcement oversight. The HMSMT and HMSAS noted in their previous comments that

U.S. industry support for future management options will be contingent on concurrent efforts in non-U.S. fisheries, so having available information tabulated is imperative.

2. Analyzing the socio-economic impacts of referenced possible future management options to limit effort in regard to vessels that fish multi-gear/multi-species and taking into account pertinent fleet dynamics such as new entries, new construction, composition of hulls, age of fishermen, etc.

3. Incorporating the Scientific and Statistical Committee's recommendation of characterizing fishing effort in terms of "partial F," or the U.S. portion of fishing mortality as a comparison with basing action on a projection of stock status several years in the future using a past stock assessment (stock overfished 2015 based on 2006 assessment).

4. Discussing Illegal, Unregulated and Unreported (IUU) fishing in the high seas and how it may or may not have impacted the stock and landings for NPA.

Issues Related to Limiting Effort in the Albacore Fishery

The White Paper discusses the establishment of an effort limitation framework that could be implemented at a later date if required by international action. The HMSMT recognizes the desire of the U.S. to demonstrate it is in compliance with international management measures and to take a regional leadership role that would assist in encouraging other NPA fishing nations to take similar action. The HMSMT also recognizes the benefit of early engagement in the task of developing the information needs to support future Council action given the historically slow pace in establishing programs to limit effort. The HMSMT believes, however, that it would be prudent to await further guidance from the Council before compiling the information needed to design a management framework to limit effort, as this process is generally very contentious and time consuming. There are a large number of vessels that are "part time" participants in the U.S. NPA fishery, many of which engage in a "portfolio diversification strategy" targeting salmon, albacore, and crab. This "part time" aspect adds an extra layer of complexity to the exercise. Furthermore, since participation changes over time, the management framework could become quickly dated.

If the Council directed the HMSMT to begin compiling the information in support of a management framework to limit effort, we would draw upon the previous HMSMT experience with developing the information needs for a proposed West Coast longline limited entry program to serve as a guide.

In addition to the HMSMT comments above regarding effort limitation, the team reviewed the information in Agenda Item G.3.a., Attachment 2, and makes the following general observations:

1. A large number of vessels (1,300) participated in the albacore pole/troll fishery at some time during 2004-2008, the time period analyzed for Attachment 1. However, the number of vessels in any given year averaged about 600, an indication that many vessels

move "in" and "out" of the fishery, perhaps as part of a fishery portfolio diversification strategy (See Figure 3 in Attachment 2).

2. About one-third of the vessels account for nearly two-thirds of the albacore landed on the west coast. For example, during the 2004-2008 period used in the analysis, 398 vessels (30 percent) accounted for 58 percent of albacore landed. For these vessels, albacore represents over 80 percent of their landings of all species. For another third of the vessels (446), albacore comprise 10 percent or less of their west coast landings of all species (See Table 1 in Attachment 2).

3. There are a large number of vessels that are "part time" participants. In this analysis, it appears that almost 75 percent of the vessels (964) engage in a "portfolio diversification strategy," combining salmon troll and/or crab pot with albacore troll. For these vessels, albacore can be economically important (See Tables 3 and 4 in Attachment 2).

These characteristics of the fishery would need to be considered in designing an effort limitation framework that would effectively limit effort while not unnecessarily excluding part-time participants who rely on a portfolio diversification strategy. For example, a "liberal" permitting standard using any landings during 2004-2008 could qualify 1,300 vessels while on an annual basis only about half that number of vessels make landings. Such a standard would do little to limit effort. Given the diverse participation strategies involved, identifying appropriate criteria to accommodate these strategies, yet maintain effort at recent levels, will be difficult.

The highly migratory behavior of albacore and multiple international fisheries targeting the same NPA stock make it difficult to define catch and effort goals for the U.S. fishery off the west coast. There is currently no catch limit, either for the U.S. fishery or any other foreign fishery, and consequently it is difficult to define an appropriate effort limit. Accordingly, a tiered permitting system based on different levels of access privilege could be hard to design if not tied through fishing opportunity to some overall catch limit objective.

Considerations for Changing the Current March 9, 2000, Control Date

A control date is primarily intended to discourage speculative participation in a fishery in advance of limited entry. Use of the control date as a management measure is optional; it doesn't have to be used in any qualification scheme ultimately adopted for limited entry. Detailed information on participation relative to the current control date is provided on pages 8 and 9 of Agenda Item G.3.a, Attachment 2).

Participation in the albacore troll fishery has been stable or slightly declining since 2000. During the period 1990-2009, 2,649 pole/troll vessels made at least one albacore landing. About a third of these vessels appear to have regularly participated in the fishery, both before and after the current control date. The other two-thirds probably represent turnover in the fishery.

It is not clear that a more recent control date would affect the overall number of vessels who might qualify if the date were used in a limited entry qualification scheme. However, if there is

concern about speculative entry into the fishery should the Council decide to move forward with a limited access / limited access privilege program, a new, current control date may be warranted.

Any control date, if ultimately used in a qualification scheme, would have effects at the individual vessel level even if it has limited effect in terms of overall participation. Fishery participants (e.g., HMSAS) would be in a better position to describe how a specific control date would affect fishery participants.

PFMC
3/25/10

Appendix 1: Additional Information Relative to Participation in the West Coast Albacore Fishery

The graphics presented and discussed below are intended to address the HMSAS's November 2009 request that the HMSMT provide information on the characteristics of the current west coast albacore fishery.

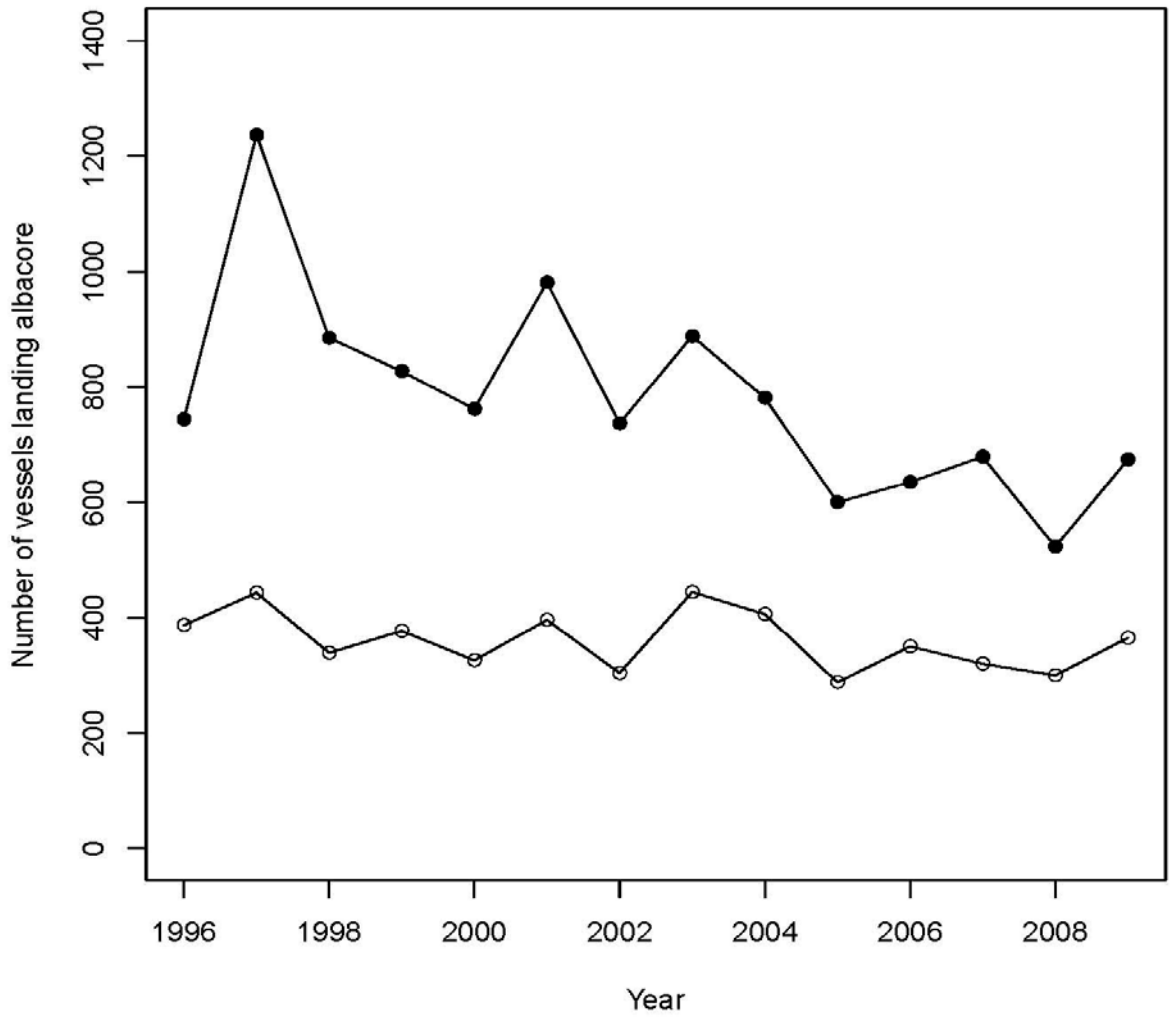

Figure 1. Annual numbers of participating vessels in the albacore surface hook-and-line fishery.

Figure 1 compares the total number of participating vessels in the albacore surface hook-and-line fishery (top series shown on figure) to the number of participating vessels with at least five metric tons (MTs) of catch in each year (bottom series). Vessels with any record of landings for a given year were counted as participating. The graph shows that there are typically about 400 vessels catching at least 5 metric tons of albacore in each year, with a similar number of additional vessels catching fewer than 5 metric tons in

each year. While there was a slight decline in the overall number of participating vessels since 1996, there is no discernible trend over the period in the number of vessels catching at least five metric tons.

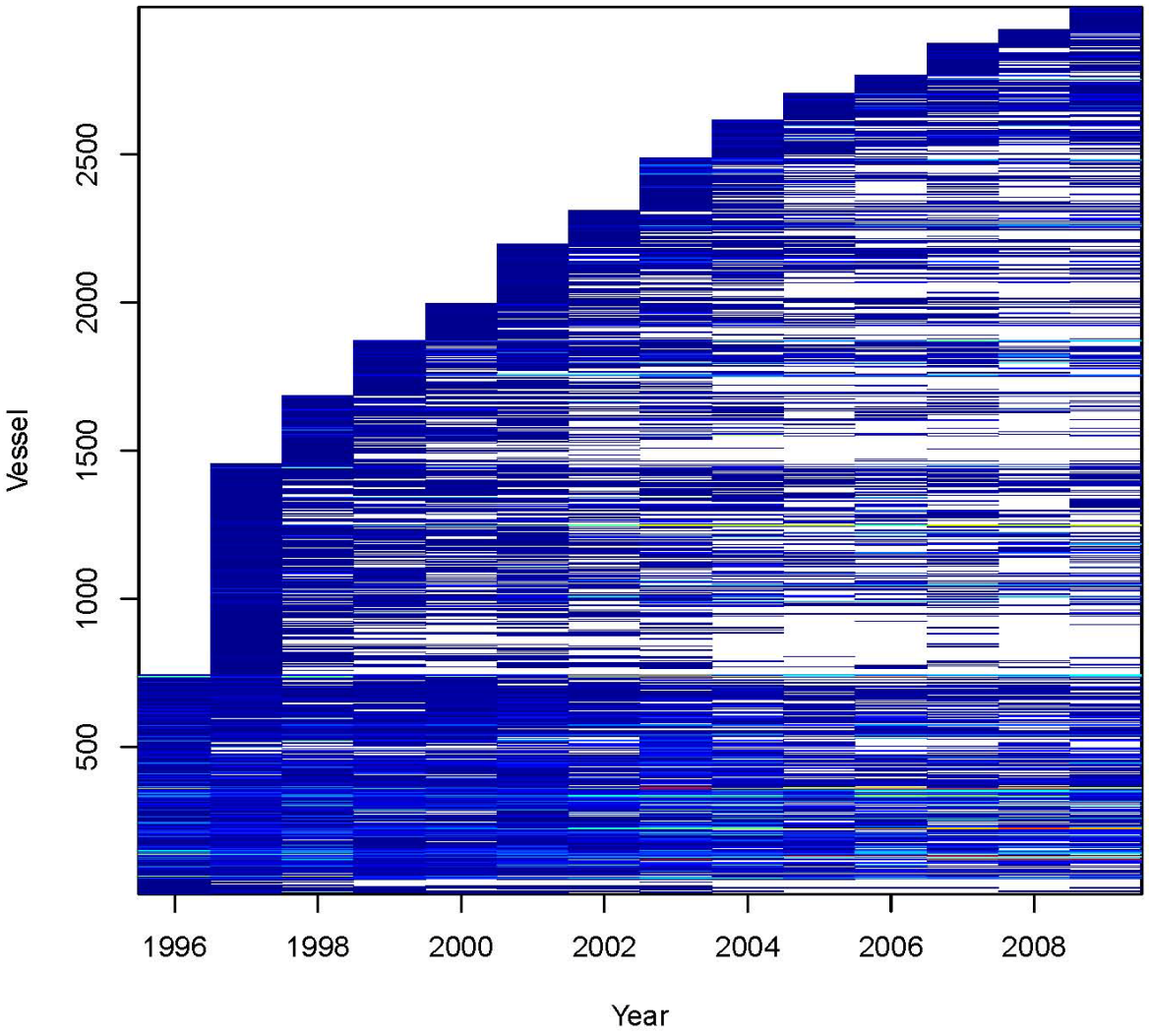

Figure 2. Participating vessels in the albacore surface hook-and-line fishery by year of entry.

Figure 2 represents participating vessels by the year they entered the fishery; subsequent participation for each vessel is indicated to the right of its initial entry point by colored (shaded) bars, with white bars indicating no participation for the year in question. (In this figure and the following two figures the red bars indicate vessels with the highest level of landings.) The initial cohort of 750 or so vessels for 1996 represents not only vessels that entered that year, but also vessels that were already fishing in previous years. The step size for each year forward represents new entry in each subsequent year; for instance, about 750 new vessels entered in 1997, while only 200 or so vessels entered the fishery in 1998. The slightly concave (increasingly flat) shape of the stair step pattern of new entry after 1998 suggests that there was no significant change in the rate of new entry to the fishery after the establishment of the March

9, 2000, HMS Control Date, and that the annual number of new entrants to the fishery has slightly trended down over the subsequent period.

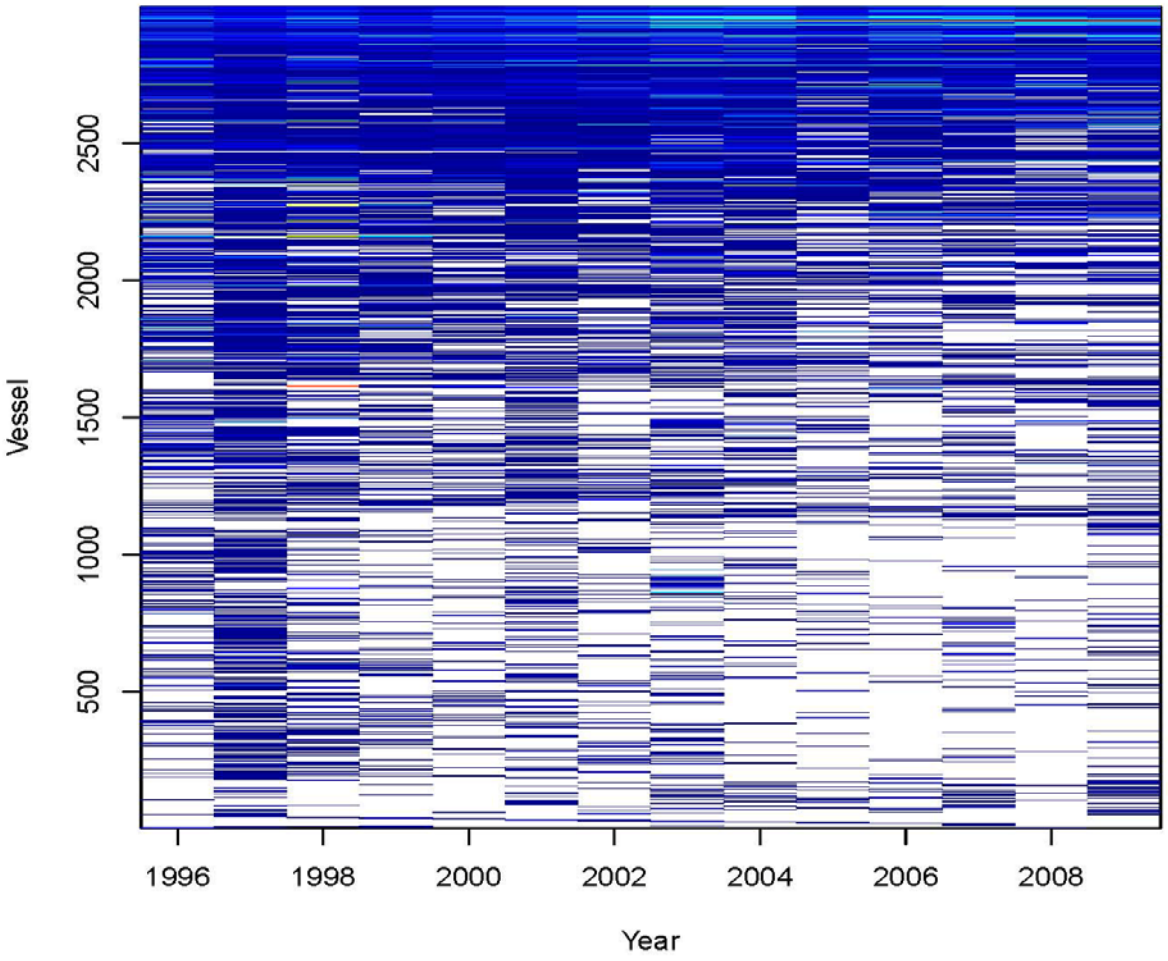

Figure 3. History of participation in the albacore surface hook-and-line fishery, all vessels.

Figure 3 displays the history of participation in the fishery for all vessels with any participation over the 1996-2009 seasons, ranked by years of participation; vessels with the greatest number of years of participation are shown at the top. As noted above, the red shaded bars represent vessels with the greatest amounts landed, while white bars indicate no landings for the year. Aside from 1997, when new entry and participation were both unusually high, the vertical bars on the graph suggest that most years feature a core group of individuals with consistent participation in the fishery, augmented by another group with sporadic, opportunistic participation.

The contrast between consistent and sporadic participants is further highlighted in Figure 4 below, which filters out vessels with less than 5 metric tons of landings in each year. This resulted in reducing the number of vessels with a record of participation since 1996 by roughly two-thirds.

Taken as a group, Figures 1-4 suggest participation in the albacore surface hook-and-line fishery has remained quite stable over the period since 1997. In particular, there is no apparent evidence from the Figures that establishing the HMS FMP or the March 9, 2000, HMS Control Date influenced the pattern of entry to and attrition from the fishery.

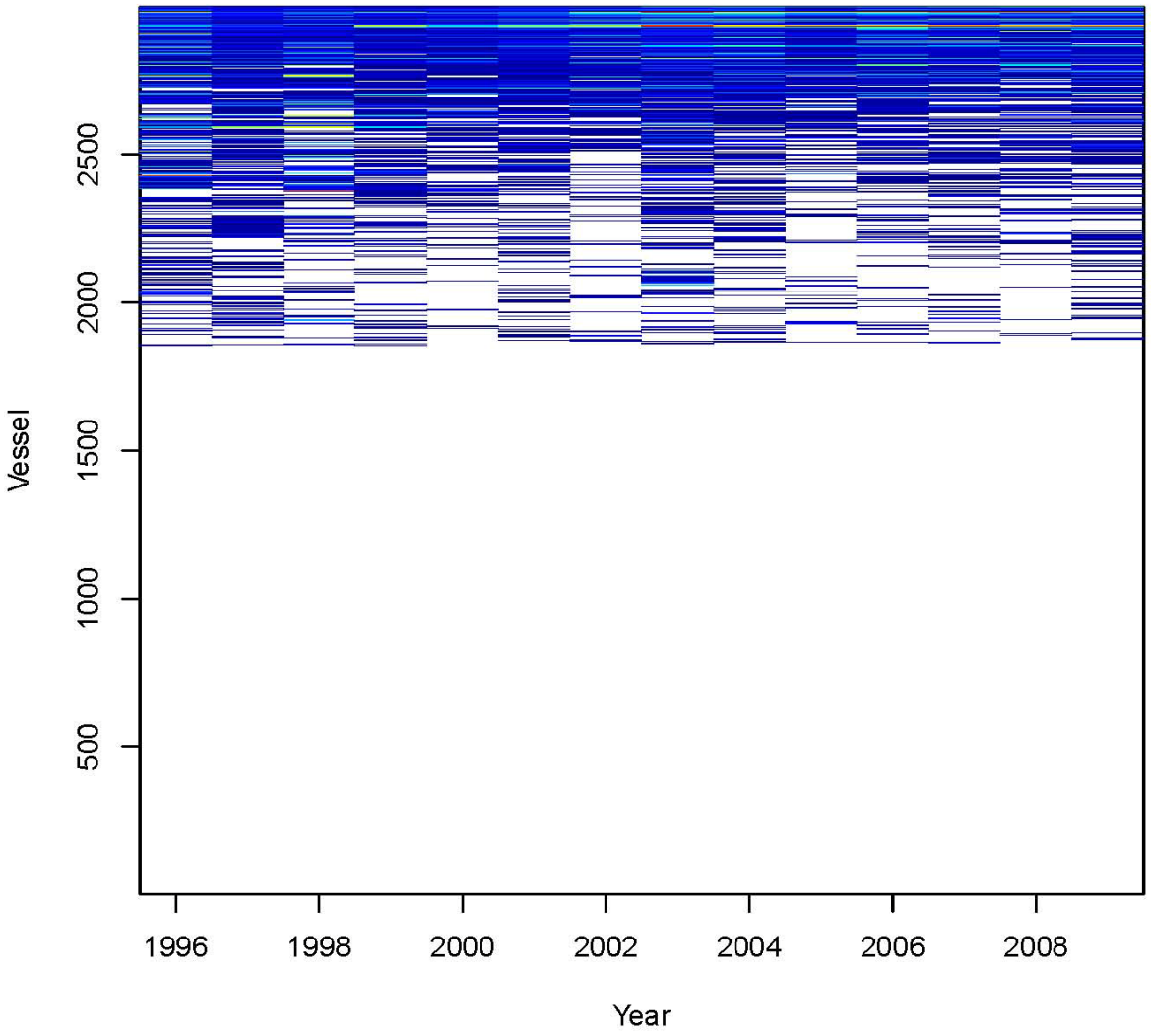

Figure 4. History of participation in the albacore surface hook-and-line fishery, landings over 5 mts.

Appendix 2: Preliminary Catalog of Data Types Needed to Develop Limited Access/Limited Access Privilege Program

Should the Council direct the HMSMT to pursue further analyses on effort or access limitation, the HMSMT proposes to compile and analyze the types of data and specific data elements listed below.

Landings Data
From PacFIN vessel summary files and/or query on FT and FTL tables:

- Date of landing: year, month, day
- Vessel ID: VEID and/or DRVID (USCG document number of small vessel number)
- PacFIN agency ID (AGID)
- PacFIN port code (PCID)
- PacFIN gear code (GRID) and state gear code (FTL.GEAR)
- PacFIN species code (SPID)
- Catch area from AAR table
- Participant group (FT.PARGRP)
- Round weight equivalent in lbs
- Revenue in dollars

Vessel Data
From SV and CG tables:

- Vessel owner address information
- ID type (SV.IDTYPE) to identify Canadian vessels
- Vessel characteristics (length, displacement, etc.)

Permit Data

- Limited entry permits registered to vessel by vessel ID
- General HMS Permit registered to vessel by vessel ID

Logbook and Effort Data

- Logbooks submitted for vessel by vessel ID (Yes/No)
- Days and areas fished
- Landing dates and ports
- Fish ticket ID, if associated with logbook entry

HIGHLY MIGRATORY SPECIES ADVISORY SUBPANEL REPORT ON CONSIDERATION OF EFFORT LIMITATION IN THE ALBACORE TUNA FISHERY

The Highly Migratory Species Advisory Subpanel (HMSAS) opposes unilateral management by National Oceanic and Atmospheric Administration (NOAA)/National Marine Fisheries Service (NMFS) or the Council, such as effort or catch controls on the U.S. troll and baitboat albacore fishery. At this time, indications from the International Scientific Committee (ISC) are that North Pacific Albacore stocks are being harvested at a sustainable level. All indications also show the U.S. albacore fleet is not expanding nor is effort or catch increasing. On the contrary, the U.S. albacore fleet and supporting infrastructure may be shrinking. The HMSAS feels that if and when future stock assessments show otherwise, effort controls of any kind should be undertaken in a multilateral effort internationally and address issues such as illegal, unregulated, and unreported (IUU) fishing, regional effort and capacity issues in a multilateral international effort. The HMSAS strongly supports increased funding for science and research both Federally and internationally for albacore tuna. The HMSAS feels the Council at this time does not have enough knowledge of the fishery or stocks, especially at the international level, to begin a process that will affect less than 15 percent of the North Pacific catch.

The HMSAS believes that the U.S. albacore fishery is not increasing either in vessel numbers or people entering the fishery. The trend since 2000 has been very stable and has maintained current levels despite restrictions in other fisheries.

The HMSAS believes the fishery which has a long history that needs to be supported and not restricted in order to keep it viable for the future, given the lack of other options for fishermen.

The HMSAS is concerned that the Council has a full agenda and if it moved ahead with unilateral effort control on U.S. fishermen it would not be addressed in a productive way which could further jeopardize one of the last remaining sustainable and clean fisheries in the U.S.

The HMSAS discussed moving the control date for potential albacore limited entry from March 2000 to a more current date. As explained in the situation summary, “Although there is no hard-in-fast rule about how (the) recent control date needs to be when initiating limited access program, it is expected that when a date is announced, the Council will ‘proceed quickly’ in developing the program.” From the previous HMSAS testimony, you heard the reasons why the HMSAS advises the Council that proceeding with limited entry is premature and therefore to suggest moving the control date at this time would not be appropriate.

Concerning the North Pacific albacore White Paper, the HMSAS agrees with the HMS Management Team (HMSMT) that several key issues and concerns were left unresolved in the white paper as explained in the HMSMT Report (Agenda Item G.3.b). The HMSAS would especially like to reiterate their concerns that U.S. industry support for future management options should be contingent on concurrent efforts in international fisheries management.

The HMSAS acknowledges that the Council has been concerned with its responsibilities should the Secretary of Commerce declare the North Pacific albacore stock is approaching a state of overfishing or is overfished. This concern may be part of the basis for the Council's premature consideration of management measures for North Pacific albacore.

It is the view of the HMSAS that with the 2007 amendments to the Magnuson-Stevens Act, Congress specifically clarified that the actions which a Council should take in the event of an overfishing declaration in an international fishery are quite different from a Council's obligation in a domestic fishery. The Council is not under an obligation to establish a rebuilding plan. Rather Secretaries of Commerce and State are to take action at the international level to end overfishing. Then the Council has a year to develop recommendations that would address the relative impact of U.S. fishing vessels on the stock and pass these recommendations on to the Secretaries of State and Commerce and the U.S. Congress.

The text of Section 304(i) appears below for your reference:

SECTION 304(I) – International Overfishing.– The provisions of this subsection shall apply in lieu of subsection (e) to a fishery that the Secretary determines is overfished or approaching a condition of overfishing *due to excessive international fishing pressure* and *there are no management measures to end overfishing under an international agreement to which the United States is a party.* For such fisheries —

(1) The Secretary in cooperation with the Secretary of State, [shall] immediately take appropriate action at the international level to end overfishing and

(2) within 1 year after the Secretary's determination the appropriate Council . . . shall:

(A) develop recommendations for domestic regulations to address the *relative impact of fishing vessels of the U.S. on the stock and if developed by a Council, the Council shall submit the such recommendations to the Secretary; and*

(B) develop *and submit recommendations* to the Secretary of *State and to the Congress* for international actions that will end overfishing in the fishery and rebuild the affected stocks, taking into account the relative impact of vessels of other nations and vessels of the United States on the relevant stock.

The HMSAS discussed moving the "control date" for potential albacore limited entry from March 2000 to a more current date. As explained in the situation summary, "Although there is no hard-in-fast rule about how the recent a control date needs to be when initiating limited access program, it is expected that when a date is announced council will "proceed quickly" in developing the program." From the previous HMSAS testimony, you heard the reasons why the HMSAS advises the Council that proceeding with limited entry is premature and therefore suggest that moving the control date at this time would not be appropriate.

PFMC
04/11/10

Agenda Item G.3.b
Supplemental SAS Report
April 2010

SALMON ADVISORY SUBPANEL REPORT ON CONSIDERATION OF EFFORT LIMITATION IN THE ALBACORE TUNA FISHERY

The Salmon Advisory Subpanel (SAS) supports the Highly Migratory Species Advisory Subpanel (HMSAS) Report recommendation, Agenda Item G.3.b April 2010, on not proceeding to develop a limited entry program and further supports the defense of the need or lack thereof, to develop a control date at this time the SAS further supports the recommendation to develop the science and socioeconomic information necessary to move forward in developing an effective limitation program.

PFMC
04/11/10

Pacific Fishery management Council Members
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1348

March 23, 2010

Dear Council Members:

I understand that at the next council meeting you will be reviewing the North Pacific Albacore new management system that has been put before you by the U.S Department of Commerce, NOAA and National Marine Fisheries Service.

My concern is what type of Management Access Controls that were put before you on the Draft Report, North Pacific Albacore 'White Paper' that you will be considering as part of the set up on the Albacore Fishery. There are only three types of Access programs listed: Limited Access Privilege Programs (LAPP); Limited Entry: and Open Access.

The (Open Access) type does not limit how many boats would be able to fish the Alabacore and can creates the 'Race to Fish' scenario that NOAA keeps referring to on the negative side of management objectives.

The (Limited Entry) type is a proven management system that has worked for years in the Salmon Industry, this is more of a free enterprise system that the United States was built on. This system if it is set up right allow the competitive spirit of the people who work the system the most, usually sustaining themselves Those that don't will go on to something else to make a living. The Total Allowable Catch (TAC), that holds control of the system, should never be exceeded if the management is controlled on a daily basis and communications thru" BOATRACS " is one way or the VHF radio along with the USCG notifying us to stop fishing is another, being just under the TAC is practical and would be understood by the fisherman. This system is also attainable in cost to buy a license and be able to fish for the younger people needed to sustain the fishery, without having to go to the proposed NOAA Government Bank and pay the high dollars required in the IFQ system that the Government would like to see happen. This is the best system for Albacore or Salmon due to the shorter life span and the movement of these fish, compared to the bottom fish that tend to stay in certain areas and take years before spawning. The amount of current boats fishing Albacore the last four or five years has been low, so the amount of licenses should be low. This Limited Entry system certainly seems to make the best pick for the near and long term sustainable Albacore fishery.

The Limited Access Privilege Program, commonly called IFQ's and ITQ's ; are to be considered in any new fishery program, by demand from the US Government, NOAA and NMFS. This type of program has definitely limited the amount of boats fishing and the amount of people in the fishing industry, has hurt and put some towns out of business in Alaska and elsewhere. Has given special rights on selected fish species to a few people and taken away the free enterprise system that once again was what built the United States. These (LAPP's) have not lived up to what the Government say's they will do. Their own brochures on thirteen specific IFQ's have shown the fishing revenue over a ten

year period without considering inflation to have increased the Bottom line by One percent per year on four of the fisheries. This is not the big bucks that they talk about. This type of program also opens up ownership to land based fish processors, fish based business's and towns, banks and others, the list can be very long and no longer are the fisherman a independent business but will end up being a sharecropper to the large corporations etc,. The race to fish issue is not a current item in the Salmon or Albacore fishery, There are so many things that are negative about (LAPP's), should you like to investigate more, NOAA has had a public comment program on Catch shares that is now closed , possibly the council may have copies of this for your information.

In closing, I would like to see a Limited Entry System to control the Albacore fishery with a really good management control system based on the fisherman reporting their catch on a daily basis if needed along with the fish counts being tallied in a quick compliance to benefit both the management and the fisherman on a daily basis. Lets not leave out the enforcement issue which should change over to a trust basis for all parties concerned, it's should be easy to match the catch amount reported with the amount landed.

Sincerely:

Hank Bryson
F.V Christy Belle

548 NE 60th CT
Newport, OR 97365

541-961-7688

COP 21

TO: Pacific Fisheries Management Council,

NMFS, NOAA, Fellow fishermen,

& Coastal Friends of the Ocean

From: John Harder (john-boy, JB),

F/v "Ocean Joy"

West Coast, & High Seas Albacore Troller (Jig fisherman),

Founder of **O**cean **F**riends **A**gainst **D**riftnets (OceanFad.org)

Dear Council,

In regards to setting limited entry, and or individual boat quotas on albacore tuna, I must request, most definitely NOT.

West Coast, & High Seas tuna trollers, & bait boats are using a "**sustainable**" gear type.

We should all take note, head, to this.

Sustainability is the capacity to endure.

And believe me, we have endured plenty!

In ecology the word describes how biological systems remain **diverse** and **productive** over time.

For humans it is the potential for long-term maintenance of wellbeing, which in turn depends on the wellbeing of the **natural world** and the **responsible use of natural resources**.

So, if a sustainable fishery is healthy, then so should the ocean. If a sustainable fishery is not healthy, then neither is the sea.

To restrict, or limit such a fishery would be taking away the very meaning of the word, **sustainable.**

This "**gear type**" should set **president** and all focus should be put on this to enhance, preserve, observe & protect this fishery & its environment. This is/was an "**existing fishery**."

According to the "**Code of Collection" Title 16, 1826.Large-Scale driftnet fishing**, paragraph (D) International agreements, subparagraph (9) it states "The taking of nontarget fish species, marine mammals, sea turtles, seabirds, and endangered species or other species protected by international agreements to which the United States is a party is minimized and ***does not pose a threat to"existing fisheries"*** or the long-term **health of living marine resources;** and ...

I feel we should be protected just as the sharks, & my brother the turtle. It's my dolphin & whale friends that sent me to you. It's the albatross birds that lead me to fish! Why would I want to harm them? Sometimes there are many of them. That's when we do our best! I speak not only in my fishery's behalf, but for the **Ocean's Life which comes 1st**. If we want to save our ocean's **natural recourses**, including the Highly Migratory Species, we must uphold the "Code of Conduct". Here, on the West Coast, we have the most **sustainable** means of fishing albacore tuna in the entire world, yet we are **NOT supporting it**. Why? The canneries do not support us, NOAA & NMFS do little for us, yet everyone claims to **WANT** to support sustainable fishing.

The Code of Collection Title 16, 1826. Large-scale driftnet fishing also states in paragraph (c) **Policy:** It is declared to be the policy of the Congress in this section that the United States **should;** subparagraph (3) **secure a permanent ban on** the use of the destructive fishing practices, and in particular **large-scale driftnets**, by persons or vessels fishing beyond the exclusive economic zone of any nation. If you truly want to **support** the Ocean & **sustainable fishing,** then "**BAN**" the **unsustainable** fishing "**gear type**", "high seas driftnets" and FAST!

The West Coast Albacore Trollers are NOT **all** healthy. We are only healthy inside the EEZ, but our "**High Seas**" fleet has been **depleted** for over 6 years now. American & Canadian High Seas albacore vessels landed as much tonnage as the coast, 10 years ago. We were just getting the fishery going good, when we were invaded by high seas driftnets, starting in 2001. This was our 3rd death to the High Seas Driftnet fleet. They wiped out our existing fishery in the 80's ending the midway fishery, then again in the South Pacific in 1989. We **only** had **6 driftnet free years** in the north pacific & we were taking 4,000- 5,000 tons per year on the high seas up until the return of some 70 high seas driftnet vessels, mainly from Taiwan, China, & Indonesia.

We were left for slaughter. Like **Lions for Lambs**, caught up in a struggle over harvesting our high seas tuna stocks, again, & we thought we would be protected... Instead we were sold out, and our ocean's natural resources along with us.

Taiwan, who's preferred "gear type" is large-scale driftnets, not longlineing, has been importing an average of 30,000 tons of albacore per year into the US. This was 2-3 times more than any other country. Are you sure that none of this fish is from **IUU high seas driftnet fishing**? Where is Taiwan's sustainable jig fleet?

I humbly request to the council to reverse the order of things. Please ask NMFS & NOAA to go back to the WCPFC and **tell them** we are maintaining, as the fishery maintains itself, and therefore **not limiting fishing effort**, but encouraging growth to expand our high seas trolling fleet back to what our potential was in 1999. International conservation measures should only apply where there is a need for change or action. "**If it works, don't fix it**". We have had **no restrictions for 60+ years & we do NOT need them now.**

I ask the council to pass on to NMFS & NOAA a **request to** WCPFC & IATTC for all countries involved in High Seas Driftnets, such as Taiwan, Indonesia, PRC, Viet Nam? To **produce a Troll fishery** in their own states as soon as possible, as proof that high seas driftnets are, no longer, the preferred "gear type" of choice. Trolling & Loglines go hand in hand, unlike **trollers & driftnets**, which are in constant **conflict**. I also request an investigation be made as to exactly how much tonnage has been taken from such HSDN states and where the fish was sold. A request for this tonnage is to be **deducted** from **quotas** set for such states, and reissued to sustainable fisheries such as Trolling & or Bait fishing from any states interested in pursuing high seas albacore stocks responsibly. I would be glad to help in away way possible & only require appropriate funding from interested states.

I would like to thank the counsel for the request to the WCPFC for a three year assessment of the albacore stocks as opposed to longer. I do not understand why NMFS did not include the **major negative impact** of **high seas driftnets** in the **2006** assessment, except to hide the fact. At the time of this assessment, there was NO production off shore. Fishermen reported net marked fish & driftnet sightings directly, but NMFS fails to pass this on in reports to congress, or include them in other reports such as stock assessments. Even the Coast Guard reports & Northern Committee neglect to mention that the "off shore" jig fleet may be in trouble on account of the large-scale high seas driftnet activity. It would make sense if when our stock assessment showed signs of decline, while high seas driftnet activity was increasing, don't you think?

After delivering a documented report to the WCPFC on encountering 14 driftnet vessels in the north pacific in **2005**, I returned to the north pacific to find even more high seas driftnet vessels in the same area. There were **ninety eight sightings** all together in **2006**, and **NO convictions**, if you did not know. (see chart 1 from NOAA) Most of these IUU vessels are from China, Taiwan & Indonesia. All three states are involved in importing fish into our country threw the (big three) canneries now belonging to Asian countries. The state department said to me "**China owns US**". **I ask the counsel,** dose China own the **Ocean too**? I **documented** the

2006 **report** & shared it with the **WCPFC**, but they showed me no support. I got the evil eye & a lot of cold shoulders.

And what about the "**Code of conduct**"? Where is our support? Is NOAA so bold as to buy & sell the oceans natural resources right out from under their own **sustainable fishing fleet?**

The way I see it, I have no rights to the "Code of conduct", being USA does not recognize the "Law of the Sea". Therefore NOAA can impose on my fishery any time they want. This is not honorable; therefore NOAA has no honor or respect towards sustainable fishing. This is not justice; therefore NOAA does not stand up for Justice. If you want to know about fish, go to the fishermen.

I would like to recall 1981 off the coast of Monterey, CA during a very sustainable "**hook and line**" rock cod fishery that NOAA, imposed upon us, the introduction the gillnets given to the Vietnamese immigrants. This fishery not only infringed on our benefits, it destroyed our Ocean's natural resources & envirement. NOAA did not ask our permission, nor did they take our sound advice then to **BAN gillnets**. Instead, we were encouraged by NMFS to try gillnets, opening up the door for this **unsustainable "gear type"** & closing the door to sustainable fishing. **Sustainable** fishermen tried to report to the counsel, & never returned to the sea to harvest our natural resorses again. Instead**, trallers** (unsustainable) are allowed to take fish & **forced to discard** 60%-80% (as of now) of their take, as non target species, back into the sea. This should be **totally unacceptable**! If we were to **use our wisdom** from the hook and line fishery, we would have a perfectly **viable fishery** up & down the coast harvesting maximum sustainable yield, putting hundreds of west coast fishermen, and markets, to work & feeding the west coast **fresh** sustainable **rock cod**! The **stocks** are the **healthiest** they have ever **recorded**, if you did not know.

The "**Code of Conduct**", from what I understand it to be, is a gentleman's agreement, or an unwritten law internationally known between mariners and fishermen that no one fishery can impose a threat on another. That all mariners should respect each other as not to interfere with each other's fishing operations, or production. One of the golden rules is to aid and assist one another in time of need, even in adverse conditions. We must stop and help one another, no matter what!"**NO MAN DOWN**", "**NO BOAT LEFT BEHIND**". We do not dissert our partner. American fishermen know this code well & for the most part, abide by it, or perish. It's inbreeded in us. Our **forefathers** wrote this code & our country was built by it. It is our Honor and duty! Our **Government** agencies should also be bound by this. Yet our government has been allowed to **exploit it.** Please, listen to the **fishermen**; we have so much to **teach** you. Do not take everything we give you away from us! Our west coast has an abundant supply of **natural resources**. Allow us to harvest them sustainably & responsibly with one gear type, "hook and line". Our preferred "gear type", at one time, if you did not know. That gives **everyone a chance** and a **choice, including the fish!**

Back to Albacore tuna, please **keep in mind**, our sustainable tuna fishery **is not subsidized**. We pay high fuel prices and are privately owned. We are not company boats, and are not receiving any benefits. Unlike our Asian competition, or Viet Nam, or France whom have given millions to the driftnet fishermen to reinvest in sustainable fishing methods, only to be used to

purchase more nets. The albacore tuna price is set by the world market. Too much driftnet fish on the world market just drives the world market price down. Most fishermen are like me. When I leave port, I have nothing in the bank to fall back on. If I miss One Trip & come into port with no fish, I will lose everything. All it takes is one bad trip, & I can't get back out again. Many American fishermen, like myself, spent hundreds of thousands of dollars, building boats to fish off shore on the pretence that the UN moratorium would give us the right, as an existing sustainable hook & line fishery, to the high seas tuna stocks. We spent over 70,000.00 (USD) on fuel & food alone, only to come back to the coast with empty holds. What was a sure thing, now turned into impossibility? Nobody in their right mind, not even me, would go off shore knowing that there might be driftnets on the high seas. This puts more pressure on the coastal fishery. You can see these big "off shore" vessels scattered up and down the coast. All for sale cheep. Some vessels were lucky, or smart enough to get into other fisheries such as the longline fisheries. I for one feel that I should be compensated for my loss. I know they pay farmers not to grow. I would have rather been somewhere ells if they were going to rape my fishing grounds! Just like in the eighties, it's only a matter of time before the coastal stocks start to decline to less than 1/2 a ton per day average if high seas driftnets persist.

Please permit me to give a rundown of the history of our High Seas tuna fleet with information given from NMFS's web site on foreign imports of albacore tuna correlation.

Many US sailors returned to the sea after WW2 as tuna trollers who were spread up & down the coast. It was not unheard of to venture 300-500 miles off shore in the fifties & sixties, although much of the production was close to the mouth of the Columbia River. We were the **cannery's mainstay**, until foreign fishing production influenced canners to move to the western pacific. As production "Off Shore" increased, so did our boats. By the mid 70's, some **20-30 vessels** were filling **record loads** on the dateline and thus the "**midway fishery**" was born. At this time, high seas driftnet boats fishing for squid & salmon were observed by the jig fleet. We watched, as they discarded (shoveled overboard) tons of small juvenile albacore back into the sea. They were **not targeting albacore** at this time, so "**existing fishery**" jig boats, were not concerned. By the next year in 1978, driftnet boats **were targeting tuna & us.** We would wake up with nets all around the boat. Some trollers spent all day trying to get clear of the nets. Our **propeller's** were **fouled**, were afraid to travel at night taking a chance on running over driftnets.

77'-68,000 total tons imported to US. #1 Japan-20,000, #2) Taiwan- 12,000, #3) S.Korea-6,000

78'-80,000 total tons imported to US. #1 Japan-17,000, #2) Taiwan-14,000, #3Psfc Ils.-4,000

79'-88,000 total tons imported to US. #1 S. Korea-22,000, #2 Japan-20,000, #3Taiwan-16,000

We reported to WFOA, NMFS, but nothing was done to stop them from running us off the ocean. Our "**Midway fishery**" **collapsed** by the mid 80's, while Taiwan increased its imports to the US, taking over the #1 spot.

82'-71,000 total tons imported to US. #1 Taiwan- 24,000, #2 Japan- 19,000

86'- 78,000 total tons imported into US. #1 Taiwan-37,000, #2 Japan-10,000, #3 S. Africa-5,000

87'- 84,000 total tons imported into US. #1 Taiwan- 50,000, #2 Japan- 9,000

In an attempt to **regain a fishery** & provoked by the (big 3) tuna canners, US & Canadian tuna trollers headed for the **south pacific** in 87'where we found **good** tuna fishing **stocks**. Only to have the driftnet fleet follows us down under two years later. We were astounded. The **canners assured us** that this would **not happen**, but it did. **We perished** for the 2nd time.

89'- 99,000 total tons imported into US #1 Taiwan-52,000, #2 Thailand- 9,000, none from Japan

90'- 71,000 total tons imported into US. #1 Taiwan-32,000, #2 Japan-8,000, #3 Thailand- 3,000

91'-64,000 total tons imported into US. #1 Taiwan-36,000, #2 Thailand, #3 Japan-4,000

In1991, I was fortunate to receive a fuel subsidy from ARFF to do stock assessments west of the dateline. There was nothing but small, undersize tuna & driftnets. One of the observers onboard a driftnet vessel who was reporting to the UN from NMFS told me that there was going to be a moratorium on driftnets. I was overjoyed & thought it to be as a BAN. The observer commented that they would be back after about 8-10 years. I was shocked! How could NOAA do this? Sure enough, the **High Seas Driftnet never quit fishing** with their destructive nets, but simply moved over to another ocean and started raping the Indian Ocean. Notice how **Taiwan never slowed down** in their imports all threw the 90's. Even while our US jig production went up, foreign **imports** stayed relatively **stable** in **spite** of the **UN moratorium** in High Seas Driftnets.

92'-71,000 total tons imported into the US. #1 Taiwan- 33,000

93'-70,000 total tons imported into the US. #1 Taiwan- 35,000

94'- 69,000 total tons imported into the US. #1 Taiwan- 38,000

95'- 70,000 total tons imported into the US. #1 Taiwan- 31,000

96'- 67,000 total tons imported into the US. #1 Taiwan- 26,000

97'- 67,000 total tons imported into the US. #1 Taiwan- 26,000

98' -70,000 total tons imported into the US. #1 Taiwan- 29,000

99'-82,000 total tons imported to the US. #1Taiwan- 40,000, #2Thailand-12,000, #3 Japan-7,000

From 94'to 2000, High Seas Tuna **Trollers did great**, without the driftnets interfering with our fishing. We had good fishing, but **canners would not buy** our **fish**. We sat tied up to the dock with record trips in the middle of the season while Taiwan imported fish to the US. We started finding alternate markets in Canada & Europe, but by then, it was too late. **By 2001**, the **driftnet** fleet **returned** to the **North Pacific** & We were history again. **We reported** sightings, but **nothing was done** in time. Please recall that it only takes one bad trip to put us under. We died a

slow death as I struggled to make reports to the WCPFC & to NMFS filling out logs & taking pictures. **Again**, we had **no support**.

Now please take note to what happens to the imports shortly after 2000.

2000'- 67,000 total tons imported into US. #1 Taiwan- 28,000

01'- 61,000 total tons imported into US. #1 Taiwan- 24,000

02'- 43,000 total imports into US. #1Thailand- 9,000, #2 Ecuador- 9,000, #3 Granadine-4,000. Taiwan only sent 2,000 tons this year. Why? Total import tonnage is down 10,000.

03'- 43,000 total tons imported to the US. #1Thailand-8,000, #2 Ecuador- 7,000, None from Taiwan

04'- 34,000 total tons imported to US. #1 Thailand- 7,000, #2 Eqidore-7,000, None from Taiwan.

05'-27,000 total tons imported into US. #1Thailand- 7,000, #2 Equidore-7,000, #3 Indonesia-5,000

06'- 26,000 total tons imported into US. #1 Thailand 6,000, #2 Equidore3,000, #3 Indonesia-5,000

07'- 28,000 total tons imported into the US. #1 Thailand- 8,000, #2 Indonesia- 5,000, Ecuador-3,000

08'- 27,000 total tons imported into US. #1 Thailand- 9,000, #2 Indonesia- 3,000

09'-25,000 total tons imported into the US. #1 Thailand- 9,000, #2 Indonesia- 3,000

In conclusion, it seems odd to me that **Taiwan stopped** importing fish into the US in 2002. It's hard to believe that our imports would drop from **67,000 – 26,000** in a matter of 5years time. Cutting out 40,000 tons of albacore in imports. Down to less than ½ the normal 60-80,000 tons.

Is America **eating less** albacore? Did the US stop buying for institution pack? This raises a few questions. Maybe NOAA or the canneries can shed some light on the subject. Seems strange that **Costco**'s isles were **full** of pallets of fish **selling** for **cheep** at this time & High Seas **driftnet activity** was **high** in the mid 00's. There is a lot of fish that seems to be missing, or is the **Ocean** so **depleted** that we **cannot fill the order** of 70,000 tons of imports per year anymore.

Please, I erg the counsel to put a stop to IUU fishing. **Sanctions** should have been in place years ago, not sanctuaries. Let's fish **sustainably & responsibly**. The public of should be aware that our US name **brands** do **not** belong to **US** anymore & have not supported US fishermen for the past **30 years**. They belong to the **countries that support IUU fishing**. Show the world **we**

care about the Ocean as much as anyone. "**BAN**" **driftnets** world -wide! It will be easy to manage only one "**gear type**"," hook and line", especially since it will manage itself.

Please, do not be misled by the propaganda fed to you from NOAA, & NMFS and the tuna industry. They are **misleading us.** They only want to stop US from producing seafood products, so America will buy more foreign fish to pay back some interest on the money we owe. I ask the council to **ask the NMFS** what is the **price** of **the Ocean** these days? I don't know about you, but the ocean is **priceless to me** & always has been. That is why I choose this **sustainable fishery.**

Please keep in mind, "You cannot pluck the splinter out of someone else's eye, if you have a log in yours"

Thank you for your time and attention.

Sincerely, John Harder

F/V Ocean Joy

HMS albacore fisherman,

Founder of Ocean Friends against Driftnets (OceanFad.org)

11) PAGES TAKEN FROM 05, 06, 07 REPORTS OF THE SECRITARY OF COMMIERCE TO THE CONGRESS OF THE US ON LARG-SCALE HIGH SEAS DRIFTNETS

*) ON PAGE FROM 05 REPORT OF THE SECRITARY . . .

2) PAGES OF 121 HMS PERMIT HOLDERS PETITION TO "BAN" HIGH SEAS DRIFTNETS

16) PAGES DOC. REPORT DELIVIERED TO WCPFC "DRIFTNET ENCOUNTIER" 05

6) PAGES DOC. REPORT DELIVERD TO WCPFC "CROWN OF THORNS" 07 06 Fishing

PUBLICATIONS: IDEA, RANTS FROM THE ROOKERY, TUNA HUNT NEW INTIERNATIONALIST, WWF REPORT

CHART 1

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A summary of high seas driftnet vessel sightings and apprehensions by North Pacific nations from 1998 to 2007 is provided in Table 1.

Table 1. North Pacific high seas driftnet vessel sightings and interceptions from 1998-2007.

Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Canada	0	3	3	0	0	1	2	1	26	9
Japan	0	2	0	0	3	0	1	17	67	21
Russia	0	1	0	0	0	0	0	0	0	2
China	0	0	0	0	0	0	11	0	0	0
Taiwan	2	3	0	0	0	0	0	1	0	7
United States	8	2	1	0	2	24	8	5	5	8
Total Sightings	**10**	**11**	**4**	**0**	**5**	**25**	**22**	**24**	**98**	**47**
Apprehended*	**4**	**3**	**1**	**0**	**0**	**6**	**1**	**0**	**0**	**7**

* Out of the total number of vessels sighted.

U.S. Driftnet Enforcement Efforts

Aircraft patrols. The USCG patrolled high threat areas in the North Pacific in support of the U.S. High Seas Driftnet Fisheries Enforcement Act, NPAFC initiatives, and to monitor compliance with the UN moratorium on large-scale high seas driftnet fisheries operations. *Operation North*

TAKEN FROM 2007 REPORT OF THE SECRETARY OF COMMERCE TO THE US ON LARGE-SCALE HIGH SEAS DRIFTNETS

TAKEN FROM:

2004 REPORT OF THE SECRETARY OF COMMERCE TO THE CONGRESS ... LARG-SCALE HIGH SEAS DRIFTNETS

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Table 1. Summary of driftnet-capable vessels detected operating in the North Pacific Ocean in 2004.

Date	Vessel Name*	Flag	Position	Source of Report	Action
6 May	*VICTORIA JAVA*	Unknown	35-10N, 169-14E	Canadian CP-140 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
6 May	Unidentified	Unknown	36-57N, 168-34E	Canadian CP-140 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
16 May	*CHUN JIN NO. 1*	Georgia	43-48N, 165-21E	Japanese Patrol Vessel	FAJ boarding, NPAFC letter, and U.S. demarches to Georgia and Taiwan
19 May	*VICTORIA JAYA 2*	Unknown	35-32N, 162-43E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
21 May	*VICTORIA 1 JAYA*	Unknown	36-12N, 161-08E	USCG C-130 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
21 May	*VICTORIA JAYA IV*	Unknown	36-15N, 161-19E	USCG C-130 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
21 May	*CHUN JIN NO. 1*	Georgia	36-14N, 161-18E	USCG C-130 Aircraft	Sighting information passed to NPAFC, PRC, and Taiwan
27 June	*TUNG YANG NO. 188*	Unknown	38-55N, 160-48E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
28 June	*TONG YANG NO. 168*	Unknown	39-01N 161-35E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
28 June	*VICTORIA JAYA*	Unknown	39-00N, 161-27E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
28 June	Unidentified	Unknown	39-02N, 161-18E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
29 June	*FUND YIH NO. 16*	Unknown	38-47N, 161-35E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
30 June	*HENG YE NO. 17*	Unknown	38-53N, 161-44E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
12 Sept.	11 High Seas Driftnet Fishing Vessels	PRC	40N-41N 152E-153E	PRC Fisheries Law Enforcement Command	Information passed to NPAFC

* Note: several of the vessels in Table 1 have very similar names and were of similar profiles. As a result, some are believed to be duplicate reports, and the best estimate for number of high seas driftnet-capable vessels sighted in the North Pacific in 2004 is 22.

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Patrol Results: Canadian patrols sighted nine high seas driftnet-rigged vessels and one supply vessel. Details on the sightings are provided in Table 3. Two of the vessels sighted on 14 September had 5 nautical miles of driftnet in the water.

Table 3. Driftnet-capable vessels sighted by Canada operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
7 June	*FONG SENG 828*	Unidentified	47°08'N, 158°40'E, 3 nm inside the Russian EEZ	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
7 June	*FONG SENG 818*	Unidentified	47°05'N, 158°00'E, 1 nm inside the Russian EEZ	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
7 June	*HENGYE NO. 17*	Unidentified	Not Available	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
9 Sept.	*TIRTARYA 02*	Indonesia?*	44°04'N, 158°17'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 6215**	Unidentified	44°16'N, 158.02'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 6216**	Unidentified	44°16'N, 158°02'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 0577**	Unidentified	43°19'N, 157°44'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 6726**	Unidentified	43°19'N, 154°44'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	Unidentified (no markings)	Unidentified	43°18'N, 157°43'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC

* "Banten" was painted on the stern. (Banten is an Indonesian province located in west Java.)
** The "*UNIDENTIFIED*" vessels' names consisted of 3 Chinese characters followed by the numbers indicated. We are unable to represent the characters here.

Canadian Driftnet Enforcement Efforts for 2008: The Canadian Government will commit 180 hours of air surveillance time to high seas driftnet fisheries enforcement in 2008. However, no firm dates have been set for aircraft deployments at this time.

Japan's Driftnet Enforcement Efforts

Japan's 2007 driftnet fishery enforcement efforts consisted of the deployment in the North Pacific Ocean of 4 Fisheries Agency of Japan (FAJ) patrol vessels for a total of 41 ship days at sea from July-October. Japan Coast Guard and FAJ aircraft flew a total of 85 hours (24 and 61 hours, respectively) from July-October. A Japan Coast Guard Gulf V aircraft was also deployed in a joint operation with the USCG on 5 September.

A Japanese patrol vessel sighted the driftnet vessel *BAHARITIMUL 134* ON 13 July 2007 at 40°09.5'N, 155°55'E. When hailed by the Japanese patrol vessel, the *BAHARITIMUL 134* responded in Chinese. However, the vessel had "Banten" (an Indonesian province located in west Java) painted on its stern and was flying the Indonesian flag upside down.

Japan's air patrols reported a total of six unidentified vessels rigged with high seas driftnets to the NPAFC and NPCGF.

On 21 July, Japanese squid jigging vessels sighted an unidentified driftnet vessel operating at 39°11'N, 162°15'E. A second driftnet vessel, the *MERINA,* was sighted on 24 July at 40°21'N, 157°01'E. Both vessels were reported actively fishing.

A Japanese Fisheries Research Agency vessel, the *58 TOMI MARU,* sighted 12 driftnet vessels on 20-25 August 2007 in the vicinity of 40°48'N-41°13'N, 156°10'E-158°22'E. These included vessels named *WANG* and *NICKY.*

Japan's 2007 driftnet vessel sightings are summarized in Table 4.

Table 4. Driftnet-capable vessels sighted by Japan operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
13 July	*BAHARITIMUL 134*	Indonesia?	40°09.5'N, 150°41'E	Japan Fisheries Agency Patrol Vessel	Sighting information provided to the NPAFC
28 June, 9 July	6 Unidentified	Unidentified	Not Available	Japan Coast Guard Aircraft	Sighting information provided to the NPAFC and NPCGF
21 July	Unidentified	Unidentified	39°11'N, 162°15'E	Japanese Squid Jigging Vessels	Sighting information provided to the NPAFC
24 July	*MERINA*	Unidentified	40°21'N, 157°01'E	Japanese Squid Jigging Vessels	Sighting information provided to the NPAFC
20-25 Aug.	10 Unidentified	Unidentified	40°48'N-41°13'N, 156°10'E-158°22'E	Japan Fisheries Research Agency Vessel	Sighting information provided to the NPAFC
20-25 Aug.	*WANG*	Unidentified	40°48'N-41°13'N, 156°10'E-158°22'E	Japan Fisheries Research Agency Vessel	Sighting information provided to the NPAFC
20-25 Aug.	*NICKY**	Unidentified	40°48'N-41°13'N, 156°10'E-158°22'E	Japan Fisheries Research Agency Vessel	Sighting information provided to the NPAFC

* *NICKY* was also sighted by a Canadian air patrol in September 2006.

Japanese Driftnet Enforcement Efforts for 2008: Japan intends to maintain the same level of enforcement effort in 2008 as in 2007.

Korea's Driftnet Enforcement Efforts

The Korean Government did not participate in any high seas fisheries driftnet enforcement activities in 2007 and does not plan to conduct any pursuant to the NPAFC enforcement effort in 2008. However, as a member of the WCPFC, Korea plans to participate in the WCPFC boarding and inspection program in the WCPFC Convention Area, which partially overlaps the NPAFC

The *HSUN HU NO.3* sighted two more driftnet vessels on 26 August 2007. These vessels also abandoned their gear and fled.

Taiwan's sightings are summarized in Table 5. None of the vessels were identified to flag state, however the Chinese words "shi-dao" were sighted on the stern of the *WANG* or *WAN9*. The Taiwan patrol vessel obtained photographs of all of the vessels.

Table 5. Driftnet-capable vessels sighted by Taiwan operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
29 July	*MERINA**	Unidentified	40°47'N, 156°35.6'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	*WANG* or *WAN9***	Unidentified	42°43.04'N, 155°07'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	*AOHERD*	Unidentified	42°43.12'N, 155°55.98'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	Unidentified	Unidentified	42°38'N, 155°47'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	Unidentified	Unidentified	42°38'N, 155°47'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
26 Aug	Unidentified	Unidentified	42°48'N, 155°41'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
26 Aug.	*HENGYE NO. 17****	Unidentified	42°51'N, 155°31'E	Taiwan Coast Guard	Sighting information passed to the NPAFC

* The *MERINA* was sighted by Japanese squid jigging vessels on 24 July 2007in roughly the same area.
** A driftnet vessel named *WANG* was sighted by a Japanese Fisheries Research Agency vessel in the 20-25 August 2007 timeframe. See Table 2.
*** The *HENGYE NO. 17* was sighted by Canada on 7 June 2007 (see Table 2). A U.S. tuna vessel first sighted the vessel in June 2004.

Taiwan's Driftnet Enforcement Efforts for 2008: Taiwan will continue to dispatch patrol vessels to the North Pacific to prevent Taiwan-flagged vessels and nationals from engaging in large-scale high seas driftnet fishing. It will also continue to cooperate and exchange enforcement information with the NPAFC.

Chinese Driftnet Enforcement Efforts

Although driftnet fishing for salmon on the high seas is illegal under PRC law, PRC fishing vessels and nationals have continued to engage in large-scale high seas driftnet fishing in the North Pacific Ocean in recent years. The encouraging news is that the cooperative efforts of U.S. and PRC fisheries law enforcement authorities are achieving some success toward eliminating the problem. With the cooperation of the PRC Government, the USCG was able to intercept six PRC-flagged high seas driftnet vessels in the northwestern Pacific Ocean in 2007 (Table 2). These vessels were turned over to the PRC FLEC for investigation and prosecution under PRC law. Thus far for 2007, the PRC has taken enforcement action against 13 illegal high seas driftnet vessels and one transfer vessel operating in the North Pacific. In seven cases, the

three vessels were intercepted; the fourth (*6106*) escaped. While USCG boarding teams did not observe any catch in the holds, the vessels were configured for large-scale high seas driftnet fishing, and the PRC FLEC shiprider from the *BOUTWELL* boarded and seized all three vessels for violations of PRC law. The *BOUTWELL* transferred custody of the three suspected high seas driftnet vessels to the USCG Cutter *MIDGETT* before a rendezvous and final custody transfer to a PRC FLEC patrol vessel. Similar to the previous three PRC-flagged fishing vessels seizures, these vessels are believed to have been targeting squid, based on associated sea surface temperatures.

A summary of the U.S. seizures and sightings of high seas driftnet vessels in 2007 is provided in Table 2.

Table 2. Driftnet-capable vessels intercepted or sighted by the United States operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
6 Sept.	*LU RONG YU 6007*	PRC	42°50'N, 157°45'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
14 Sept.	*FONG SENG NO. 818*	Indonesia	42°58.15'N, 154°11.82'E	U.S. Coast Guard Cutter	Sighting information passed to the Indonesian Government and the NPAFC
24 Sept.	*LU RONG YU 1961*	PRC	43°55.83'N, 155°46.85'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
24 Sept.	*ZHE DAI YUAN YU 829*	PRC	43°55.83'N, 155°46.85'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 2659*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 2660*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 6105*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 6106*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Sighting information provided to the PRC and the NPAFC

In addition to the enforcement effort associated with seizure of the six PRC-flagged large-scale high seas driftnet vessels, the USCG Cutter *CHASE* rendezvoused with the Russian Federal Security Service patrol vessel *VOROVSKY* for a separate IUU fisheries law enforcement joint patrol, officer exchange, and training engagement in April 2007. The vessels conducted a joint boarding exercise on the Alaska State Trooper vessel *WOLSTAD* in preparations for future North Pacific IUU fishing and Central Bering Sea high seas law enforcement operations.

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13 Sept.	*UNIDENTIFIED 5267*	?	43°53'N, 155°51'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 17*	?	43°53'N, 155°50'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
16 Oct.	*DON YUAN YU NO. 62602*	China?	41°21.5'N, 150°48.1'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
16 Oct.	*DON YUAN YU NO. 66021*	China?	41°21.5'N, 150°48.1'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
16 Oct.	*UNKNOWN*	China?	41°26'N, 150°55'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
16 Oct.	*UNKNOWN*	China?	41°26'N, 150°55'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
17 Oct.	2 Unidentified Driftnet Vessels	China?	42°04.5' – 42°04.7'N, 146°30.4'-146°31.2'E	Japan (Fisheries Agency of Japan Patrol Aircraft)	Sighting information provided to the Chinese Government and the NPAFC
18 Oct.	8 Unidentified Driftnet Vessels	?	41°02.8' – 41°15.6'N, 150°20.6'-151°12.6'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information passed to the NPAFC
19 Oct.	2 Unidentified Driftnet Vessels	?	42°06.7' – 42°14.6'N, 151°53.3'-151°56.3'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information passed to the NPAFC
19 Oct.	1 Unidentified Driftnet Vessel	China?	41°06.1'N, 150°39.8'E	Japan (Fisheries Agency of Japan Patrol Aircraft)	Sighting information provided to the Chinese Government and the NPAFC
24 Oct.	3 Unidentified Driftnet Vessels	China?	41°38.4' – 41°39.1'N, 151°10.7'-151°14.9'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information provided to the Chinese Government and the NPAFC
1 Nov.	6 Unidentified Driftnet Vessels	China?	41°27.5' – 41°49.3'N, 151°31'-151°47.9'E	Japan (Fisheries Agency of Japan Patrol Aircraft)	Sighting information provided to the Chinese Government and the NPAFC
5 Nov.	6 Unidentified Driftnet Vessels	China?	41°21.8' – 41°50.2'N, 150°45.2'-151°28.2'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information provided to the Chinese Government and the NPAFC
Total Number of Sightings in the North Pacific in 2006 = 98					

* The "*UNIDENTIFIED*" vessels' names consisted of 2-3 characters followed by the numbers indicated. We are unable to represent the characters here.

Note: Only those vessels visually confirmed to be driftnet-capable were counted in this report. Radar returns alone are not considered adequate confirmation that a vessel is driftnet-capable. In addition, many of the vessels above were unidentified, making multiple sightings of the same vessel or vessels possible.

(2) U.S. Driftnet Enforcement Efforts in the North Pacific

To monitor compliance with the UN driftnet moratorium, the USCG patrolled high threat areas in the North Pacific. Operation North Pacific Watch, the USCG's 2006 high seas driftnet enforcement plan, began in April 2006. From April-October, USCG aircraft from Air Station

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9 Sept.	*UNIDENTIFIED 77*	?	44°40'N, 156°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
12 Sept.	*UNIDENTIFIED 62602*	China?	42°20.1'N, 152°39.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Sept.	*UNIDENTIFIED 62601*	China?	42°23.7'N, 152°38.1'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Sept.	*UNIDENTIFIED 66021*	China?	42°27.7'N, 152°33'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Sept.	*SAMUDERAPACIFIC NO. 8*	?	42°33.8'N, 152°38.9'E	Japan	Sighting information provided to the NPAFC
12 Sept.	*TIMUR JAYA NO. 168*	Indonesia?	42°35.4'N, 153°04.3'E	Japan	Sighting information provided to the NPAFC
12 Sept.	*NICKY*	?	42°44'N, 164.05'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
12 Sept.	*UNIDENTIFIED*	?	42°49'N, 164.10'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
12 Sept.	*UNIDENTIFIED*	?	42°42'N, 163°21'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 61*	China?	42°31.5'N, 153°19.5'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 807*	China?	42°35.7'N, 153°35'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 66021*	China?	42°32.3'N, 152°25.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 62602*	China?	42°33.3'N, 152°22.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 801*	China?	42°32.8'N, 152°26.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 52667*	China?	42°28.8'N, 152°27.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*SANANDRES 727*	?	42°28.1'N, 152°37.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 415*	China?	42°46.9'N, 153°24.3'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 6814*	?	44°44'N, 157°41'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 6815*	?	44°47'N, 157°43'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED*	?	44°48'N, 157°46'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 5268*	?	43°53'N, 156°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED*	?	43°54'N, 155°59'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED*	?	43°53'N, 155°55'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC

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7 Aug.	*UNIDENTIFIED 801*	China?	39°44.7'N, 149°55.4'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 6*	China?	40°32.5'N, 151°42.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 77*	China?	40°36'N, 151°44.1'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 99*	China?	40°37.1'N, 151°43.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 98*	China?	40°28.1'N, 151°28.3'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 1321*	China?	40°55'N, 150°58.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED*	China?	40°54'N, 151°00.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED*	China?	40°59.5'N, 150°51.9'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
23 Aug.	*MERIYANA*	?	42°11'N, 158°27'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
30 Aug.	*UNIDENTIFIED 0006*	China?	42°15.2'N, 152°01.1'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
31 Aug.	*UNIDENTIFIED 0001*	China?	42°20.9'N, 152°52.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
8 Sept.	*UNIDENTIFIED 3068*	?	44°13'N, 156°44'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED*	?	44°11'N, 156°44'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 91*	?	44°25'N, 156°23'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 77*	?	44°27'N, 155°55'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 5*	?	43°36'N, 154°49'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 132*	?	44°30'N, 156°33'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 176*	?	44°33'N, 156°14'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED*	?	44°13'N, 155°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED 518*	?	44°17'N, 154°59'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED 18*	?	44°20'N, 155°E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED*	?	44°12'N, 155°03'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED*	?	44°38'N, 156°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC

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Table 1. Driftnet-capable vessels sighted operating in the North Pacific Ocean in 2006.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
3 June	*IRIDIA*	Russia	43°44'N, 154°23'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
3 June	*UNIDENTIFIED*	?	43°44'N, 154°23'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
18 July	*UNIDENTIFIED 2388*	China?	40°30.6'N, 151°43.5'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
18 July	*UNIDENTIFIED 2900*	China?	40°08.6'N, 151°49.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2900*	China?	39°21.8'N, 152°59.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2899*	China?	39°20.5'N, 153°00.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 818*	China?	39°18.4'N, 152°57.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 820*	China?	39°17.2'N, 152°55.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 66021*	China?	39°15.4'N, 152°54.3'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2889*	China?	39°16.3'N, 152°48'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2890*	China?	39°16.0'N, 152°46.9'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
3 Aug.	*UNIDENTIFIED*	China?	39°30.9'N, 153°24.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED*	China?	39°50.7'N, 154°06.5'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED 111*	China?	39°53'N, 154°07.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED 112*	China?	39°52.1'N, 154°13.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED 518*	China?	39°51.8'N, 154°13.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
6 Aug.	*UNIDENTIFIED 52820*	China?	40°20.9'N, 152°28.9'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
6 Aug.	*UNIDENTIFIED 52819*	China?	39°57.6'N, 151°21.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC

My 2ND REPORT ON JULY 12TH "CROWN OF THORNS"

11-11

In addition, the PRC posted a list of potential driftnet vessels sighted in 2006 in the China Fisheries News and offered a $2,500 reward for information on their whereabouts and their illegal activities. Over 10,000 flyers were posted in fishing ports throughout China. DVDs containing the list of sightings and photos of the suspected drift net vessels were also distributed to port authorities. Driftnet vessels can easily be identified by the modifications that are necessary to allow them to handle the netting. Such modifications on vessels licensed to operate on the high seas are sufficient evidence for vessel seizures.

From the list of 98 vessels sighted in 2006, PRC officials said that sufficient evidence was available to investigate only 53. Of this number, 7 were unidentifiable, 3 were determined to be registered in other countries, and the remaining 43 were likely PRC vessels. Unfortunately, the PRC was unable to locate 25 of the 43 due to the vessels disguising their identity--the vessels and marking schemes were consistent with PRC-registered fishing vessels, but the names and registration numbers were not in FLEC databases, or the vessel simply could not be found. Of the remaining 18 vessels, 7 were found to be illegally engaged in driftnet fishing on the high seas As a result, their owners were fined and catches seized. Four of the vessels were also confiscated. PRC officials said there was insufficient evidence in the remaining 11 cases to take any actions, largely due to receiving the sighting reports so late.

Thus far for 2007, the PRC has taken enforcement action against 13 illegal high seas driftnet vessels and one transfer vessel operating in the North Pacific. In seven cases, the vessel and catch was seized and the owners fined. Four cases were still under investigation at the time of this report.

The United States is encouraged with the substantial increase in enforcement actions taken by the PRC Government in 2007. The PRC has given its assurances that it will investigate every PRC vessel named on the vessel sighting lists and that vessels that are found to have engaged in illegal high seas driftnet fishing will be seized and auctioned. This is a powerful deterrent. The United States will continue to assist, where possible, the PRC to improve its enforcement presence on the squid fishing grounds in the North Pacific Ocean with the ultimate goal of the PRC patrolling its own high seas fishing fleet. In addition, the United States will explore with other countries the possibility of targeting future enforcement efforts at areas and time periods that showed increased driftnet activity in 2006 and 2007, and will investigate the role that other multilateral organizations, such as the WCPFC, might play in enforcement efforts in the future.

Italy and France: Regarding Italy, the Secretary of Commerce identified it on 19 March 1999 pursuant to the High Seas Driftnet Fisheries Enforcement Act as a nation that conducts, or authorizes its nationals to conduct, large-scale pelagic driftnet fishing on the high seas beyond the EEZ of any nation. On 15 July 1999, the United States and Italy formally agreed on measures to effect the immediate termination of Italian large-scale high seas driftnet fishing. For this reason, the United States did not impose trade sanctions on Italian fish, fish products and sport fishing equipment pursuant to the Act. Although the 1999 agreement has expired, the United States has continued to apply the provision of the High Seas Driftnet Fisheries Enforcement Act that denies entry of Italian large-scale driftnet vessels to U.S. ports and navigable waters. Since 29 May 1996 it has also required Italy to provide documentary evidence

SHOW ME(US) PROOF (HARD EVIDENCE ASAP)
I, WE, WANT COMPENSATION!

TAKEN FROM:
2005 REPORT OF THE SECRETARY OF COMMERCIE TO THE CONGRESS OF THE US CONSERWING US ACTIONS TAKEN ON FOREIN LARGE-SCALE HIGH SEAS DRIFTNETS

Table 1. Driftnet-capable vessels detected operating in the North Pacific Ocean in 2005.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
16 May	*ZHOU SHAN*	?	41°47'N, 166°56'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
20 May	*TUNG YANG 88*	?	35°26'N, 158°06'E	U.S. Albacore Tuna Fishermen	Sighting information passed to Belize, Taiwan, Indonesia, and the NPAFC
23 May	2* Unidentified	?	34°57'N, 159°01'E	U.S. Albacore Tuna Fishermen	Sighting information passed to the NPAFC
18 June	*LU RONG YU SHUI NO. 228*	PRC?	37°43'N, 160°33'E	Taiwan Coast Guard Patrol Vessel	Sighting information passed to the USCG
12 July	Unidentified	?	41°18'N, 160°07'E	USCG Aircraft	Sighting information passed to the NPAFC
29 July	Unidentified	?	44°44'N, 160°03'E	USCG Aircraft	Sighting information passed to the NPAFC
2 Sept.	*LU RONG YU 1327*	PRC?	44°40'N, 155°57'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 808*	PRC?	44°46'N, 156°12'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 809*	PRC?	44°46'N, 156°12'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 810*	PRC?	44°43'N, 156°10'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 807*	PRC?	44°40'N, 156°07'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 801*	PRC?	44°36'N, 156°06'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
1 Oct.	*VICTORY III*	?	41°52'N, 151°42'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
1 Oct.	*EVER RICH*	?	41°57'N, 151°-44'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
1 Oct.	*JUARA UNTUNG NO. 6*	Indonesia	42°-20'N 151°54'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
5 Oct.	*LU MU YU 6007*	PRC	41°41'N, 151°48'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
5 Oct.	*SHUNFA 8*	Georgia	41°45'N, 151°50'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
14 Oct.	9** Unidentified	?	40°40'N 170°E	U.S. Albacore Tuna Fishermen	Sighting information passed to the USCG

Note: Only those vessels visually confirmed to be driftnet-capable were counted in this report. Radar returns alone were not considered adequate confirmation that a vessel was driftnet-capable. In addition, several of the vessels above were unidentified, making multiple sightings of the same vessel or vessels possible.

* 7 vessels were reported on 23 May 2005, but only 2 were visually confirmed. The remaining 5 were radar returns.

** Of the 9 vessels reported on 14 October 2005, 2 were unconfirmed visual sightings at night and the remaining 7 were radar returns. None of these vessels were counted in the 18 sightings in the North Pacific Ocean in 2005.

MY 1ST REPORT "DRIFTNET ENCOUNTER"

1-2

Honorary Supporters

Highly Migratory Species (HMS) Vessel Permit Holders

Here is a list of ***121*** Commercial Fishing Vessels, and their States in the US, who demand a **"BAN"** on **high seas driftnets!** These vessels hold permits to fish sustainable fishing methods of either "**Pole fishing**", or "**Troll fishing**" for ***"Highly Migratory Species"*** **(HMS).**

These vessels use **barb-less** hooks and have virtually **"O"** by-catch in their fishery. They, and other fisheries, are **directly effected** by High Seas Driftnets.This ***"Existing Fishery"*** has been depleted on the high seas. All vessel owners have **signed** a **petition**, addressed to **US congress & the United Nations** demanding a ***BAN on high seas driftnets***.

We, at **OceanFAD**, commend these vessel owners for coming forward to **help eliminate** this devastating & highly destructive fishery, known as "***The Wall of Death***", from our oceans. Our "Highly Migratory Species" must be allowed to migrate!

Fishing Vessels from California

"Boccie Boy"	"Melissa JO"	"Longfin"	"Sandra D"
"Flora M"	"Sea Spirit"	"Yellow Fin"	"Mary C"
"Tuna Kahoona"	"Monique"	"Flying Fin"	"Janice R"
"Her Grace"	"Lydorein"	"Flash"	"Captain Banjo"
"Judy Kay"	"Top Cat"	"Char-Millee"	"Happy Jack"
"Katheryne Ann"	"Raptor"	"Isabella T"	"Breece II"
"Julia Marie"	"West Coast"	"Rogue"	"Tracy Cheri II"
"Blue Dolphin"	"Moonlane"	"Avispa"	"Bruno"
"Scimitar"	"Side Winder"	"Willanina"	"Miss Jessie"
"Monika II"	"Della C"	"Neahkahnie"	"Maria H"
"Anonymous"	"Bragg-N"		

Fishing Vessels from Oregon

"New Dawn"	"Ocean Lady "M"	"Cold Track"	"Ester"
"Seawind"	"Dawn Treader"	"Deacon"	"Way To Go II"
"Pisces"	"Amy Lyn"	"San Pablo"	"Nancy Kay"

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HMS permit petition

A petition to BAN high seas Driftnets "World-Wide" by International Commercial fishermen catching Highly Migratory Species (HMS).

To: The United States Congress; the United Nations,

I, JOHN HARDER, the owner/operator of the F/v OCEAN SOY am involved in commercial fishing for albacore tuna and hold a Highly Migratory Species permit. I conduct my fishing operations in both inshore waters and high seas waters (off shore).

I have caught albacore tuna, or know of albacore tuna being caught by others, with the distinct markings (scratches) of driftnets. I have sighted, or know of others whom have sighted driftnet vessels, during the past 7 years. These driftnet fishing vessels are known to be fishing for albacore tuna and are posing as a direct threat to my fishery. I feel that high seas driftnet fishing continue to deplete the ocean's "**living marine recourses**", including "**existing fisheries**" such as mine. As stated in the U. S. Code: Title 16, Chapter 38, sub-chapter III, 1826.

I demand that an immediate Ban on all high seas driftnet fishing be made. I also feel that compensation should be given to help cover the ocean's loss and mine. Strong actions must be taken against the previous offenders. Congress & the President have failed to include driftnet vessels on any IUU list, or implemented any sanctions on offending countries, as stated in the U. S. code: Title 16, Chapter 38, sub-chapter III, 1826(a – 1826(i

No more high seas driftnet fishing, please! Our albacore tuna must be allowed to migrate!

Sincerely, John Harder date 2/25/10

We have ***121*** signed petitions as of now. If you are a HMS fisherman, from any country, & want to sign, Please copy this letter & send using our contact information, or email the signed copy to:

COP 21

Gill Net Fleet Encounter

To Whom It May Concern, I John Harder swear that all I say is true, so help me God!

John Harder: Captain – Fishing Vessel "Walloda" HS 0014003
CI 96/10

We were running (travelling) west to the area of 40NX 170E where we had good sine and some fishing with sap pole boats earlier in the season (July).

On October 8th around midnight we heard traffic on #16 VHF, seemed to be Asian and Phillipino?
This was open traffic on #16 seemed odd and disrespectful. Next two targets came on radar, 1st one 13 miles to North, then another 11 miles south of US. They were good targets, but not moving fast like ship traffic.
These boasts were moving from West-to East at approximately 7.8 knots.

Before I go on, I would like to say that we have a very strong nice raddar: JRC Raster Scan, and can pick up targets 30 miles away.
What is good is most of these gillnet boasts have big superstructures and hulls, and make good targets. Unfortunately we do too and they don't let me get close to them anymore.
They are cagey and try not to be seen. I for one have been dealing with this problem for over 20 years and know their tactics.
These boats appear to be setting gear West to East approximately 41N X 172E and 40:40N X 172E.

We continued on to West through the night, then just before daylight, another target appeared on radar 14 miles to North. We turned up towards vessel.
At approximately 9am we tried hailing vessel on 16 marks, but no answer, I, we metered fish marks, but none would come to surface.
Later that October 9th morning I sent a message to Natalie with AAFA ASS. To take action.

The vessel approximately 40.48 x 170.40E moved off way to NE. After we got within 9 miles of him we abandoned the chase and headed SSW.
We got another target approximately 40:42 X 170.21.
I tried heading for him, but turned due south after he moved to east.

There was a lot of chatter on #16 while I sent messaged to Natalie. It was all in Asian, crew say Chinese, one voice was telling, or calling other boats and they would answer sounding far away, or broken, then close by. Almost as if to warn other vessels of our presence, then it went quiet. I tried calling "you Fishing boat in area please respond" but no answer.

We reached 40.33 x 170.07 around 3pm afternoon and saw two more targets on radar. One target 40:3w x 169.50 E to West of US. The other approximately 40.23 x 170.15. These boats are right on some of the fishing spots we had previous in the trip.

We continued South where we came up on another vessel approximately 9 miles away. 39.57N x 169.42. We were drifting to the South towards the vessel, he was pulling his gear, or getting ready to set because he was not moving off, but coming closer. Around 10pm the vessel pulled up within 2 miles of us and appeared to be checking us out. I could make out his high cabin forward, like a whale back design, only boxy, typical net boat. He then took off to East and left us. 3950 x 169.40E

At daybreak on the 10th of October we had drifted 8 miles SSE and started working WNW along nice water edge. I sent message to Natalie and Coast Guard.
After a few hours we saw another target to West of us. We got within 4 miles of a long liner who was setting gear NNW. We hailed vessel on #16 and chatted. He gave me his heading, speed, etc. We watched him for few hours, then turned more north, water temperature 65.9. This was approximately 3942 x 169.09 (long liner).
We ran (traveled) north through the night, then N.W. After-1am -- 3am, we had targets 15 miles to west of us heading east. It may have been small freighter, being fast 10-12 knots, 41 x 167.42.

At daylight on the 11th we were 41.15N x 167 30E in hot water 65.5. working north. We hit nice edge and school of small fish. We worked school to north until cold water, then fish just stopped biting. We saw a flag on bamboo pole or rough looking marker. I just wanted to pull it up, but thought better not.

Around 10am we got a target coming toward us from the west. It got within 11 miles of us, then changed course to the north.
I just milled around the area catching small fish (not much) and monitoring other vessels. I wondered if this flag was his gear. I could see the current or drift was towards the SSE and strong. After 5-6 hours of cooling around a vessel approached us coming from the east. He must have ran to the other end of his gear and was now pulling to the west. That would mean the current was towards him and most likely flowed up his gear
We shut down on dark 8-9 miles upwind of his flag and let him full gear towards us as I drifted down on him. We came within 4 miles of vessel. Wow it was big! 200 ft schooner and light turned out, until he passed us, then he turned on his deck lights and lay too by us threw the night.
Approximately 9 miles away around 1pm vessel moved west of us to the north of us approximately 10 miles.

On daybreak on October 12 we were at 41.15 x 168.05. We saw net boat in the radar approximately 14 miles away north east and moving east slowly. We milled around the area for half the day then turned east to trail the vessel. The weather was coming up and getting sloppy around 25 knots of wind from the east. Around 5pm in the evening on the 12th of October we spotted birds flying around like a bird school. I turned 10 degrees to port to go to the birds but as we got close the crew told me to veer off , "turn the boat" there was something in the water I turned back to port 15 degrees and looked out to the starboard side to find gillnet and rope all spread out on the surface. The birds were

hovering over a big mess of gillnet. There was smoky colored mono-filament and small sausage floats and some strange looking lines. The Line looked as if it has wrappings of some sort. It was to sloppy to try and bring it aboard or I would have.
It was also too spread out and I was afraid it might get into the propeller. This must have been the damage net from the day before just tossed overboard by the vessel. I wish I would have grabbed it. There was a lot of life around, we saw a sperm whale and lots of dolphins in the area. We shut down that evening in the same area waiting for Miss Anige to catch up to us. Miss Angie was still travelling towards us from the east. We would meet up the next day.

I sent a message to Natalie with a AAFA to update her and the coast guard on the sighting.
On day break on the 13th of October, we were in the same area approximately 41 North and by 168 east. The weather was bad up to 30 knots from the NE. We along with Miss Angie kept moving West across the area from the day before. Water temp. was 36.5. with a little sign of fish marks on the meter but won't bite or would not bite. On daybreak of the 14th we were 41.20 North x 167.45 East we started moving North west along a good water edge. Around 2.30pm afternoon we saw the coast guard plane fly by Miss Angie also got buzzed. The day was nice and clear and the weather had calm down. There wasn't any fog in the area. I prayed they had a good run.

We kept Northwest for the next few days, we moved out to 41.45 x 163.15 without seeing any other net boats around. We returned to the area of 41.22 x 168.30 on October 18th. There were no boats to be found. On October 19th we moved east and south to 40.24N x 170.14E and saw no other vessels around. Why would these vessels vacate the area if they were not hiding something. On October 20th we were 40.31N x 172.50E, we saw a target in the radar to the north of us 12 miles. The vessel was moving NE as we followed along. We kept up speed with the vessel as it was not moving fast like a ship. After a few hours another vessel came on the screen both boats came together and stopped. We got within 8 miles of the target when they split and started moving. One target went east while the bigger target came to the west. It was hard to tell but looked like a small tanker moving west. Maybe this was the fuel ship that was reported fueling boats from China earlier this year. A fuel boat fueled 50 Chinese boats in July around 42N X 153E. We got a hold of him through Clipper Oil Company, we were looking for fuel at the time but the ship was delayed.
This small tanker just passed very close to another vessel. We worked east for the rest of the day and night. On October 21st we were 40.46 x 176.30E, we got together with Miss Angie and left fishing grounds. We put it on course for Suva, Fiji ETA November 15

I must further note in my past years experience that long linners do not work in this area. They stay to the South of 40 degrees latitude. Long linners will try to communicate on VHF channel 16 letting boats how their gear lays, direction of heading etc.
They do not run away or try to avoid you as they hauling gear. Long linners set during the day and evening and pick up during the morning hours. Long Linners do not set north or south of each other. They were work a certain latitude or water break, they will often parallel each other so that each boat will be east or west of each other.
They give each other lots of space.
Gillnet boats tend to stack their gear along the same longitude having 3-4 nets running east and west along the same longitude. I once ran through 7 gillnets going due north. This was during a A.R.F charter in 1991 for the North Pacific. It was the last year gillnets were allowed to fish. There was no fish back then for us either. The catch was identical to this year 2005. Gillnet boats work at night. Net boats run from us when we try to get close to them. They never come up on the radio when called, they won't respond just talk amongst themselves. These boats were working 60.0- 65.0 water temperature. too cold for long linners

These boats and others have been robbing the albacore stocks for 3 years now not allowing any fish to migrate through to the east. I have been fishing this very spot for approximately 3 years and no long linnners have ever fished with us just the glorious Japanese pole boats, they are truly the best. Please take away these nets, let our oceans heal then we can try putting up the poles. If net boats could troll like us we could all be catching fish today. No hook and line vessel can stand a chance against the gillnets. I believe all these boats are net boats except maybe one who was the furthest to the South and in hot water. Why would a long linner set gear next to a net boat. I'm sure he won't catch much, even the pole boats stay away from the nets we just don't mix.

I think the coast guard and A.A.F.A. for helping us expose these boats. I don't think this is the answer. The coast guard has their job to do and should not include being sheriff to fishing boats. This problem must stop at the source. The source is the fish buyer or receiver. Fisheries need to manage and protect the fish by where it is landed not where it is caught. All boats should be accounted for and fishery accounted for. We have transponders and enmarsats on board. Fisheries can take data report from us and frequently do. I'm sure the Pacific forum should be able to track any boat registered for fishing. For without total compliance from all vessels we have nothing, we must all abide together. All fish buyers should be accountable for all fish landed. Buyers know where and how fish are being caught. We should try to stop hiding it by going around the law splitting or dividing us for example United Nations versus Communists. That's like saying "you get the beebee gun and that guy can have a machine gun, now both of you go get fish". I'm not allowed to gillnet but they are.

Sincerely

John Harder
Captain - Wolloda

Message send to Coastguard & to Natalie
October 10th 10:00am

INET: kszeto@d14uscg.mil

Dear LT. Szeto.

My name is John Harder. Us Captain of Fishing Vessel 'Walloda'. I am involved in High seas trolling for albacore tuna. I want to report sightings of 7 high sea gill-netter's. 2 netters working in the area of 41.30N x 173E.Then 5 more netters were working from 41.00N x 170.30 down to the south at 39.50 x 169.45. Netters were working openly on VHF #16 !
I tried to talk to them but they would not respond. I tried to get close enough to identify them. but they were faster then we were and stayed 10 miles away. The fleet of boats appear to be working the area and moving east. Please put a stop to this madness!!! We are having the worst season ever!! Our fish stocks are gone. The US offshore albacore fleet is extinct. non-existent because someone has allowed this gill netting to go for years. Hope you can help.

Sincerity.
John Harder
(Walloda@stratosmobile.net)

Letter sent to Natalie Aafa
October 9th 10.00am

INET: nataliewebster@americanalbacore.com

Morning Natalie.

Hope things are good with you. I am taking a final look offshore for the season and ran into a bunch of gill-netters. Is there an E-mail address to send information or report these boats? I would love to see them off the ocean. There is some way to get them to stop, or my offshore days are over.
All the best.
John Bay
Walloda@stratosmobile.net.

6-16

Message sent to Natalie Aafa
October 12th 6:00pm

INET: nataliewebster@americanalbacore.com

Good Day to you Natalie.
Just thought I would give you a little update.
Today it is storming. 30 knots from the ESE. Last night we drifted near a big schooner type gill-netter in hopes to watch him hall in his gear. Unfortunately he turned out his deck lights just as he passed us from 2 miles away. Vessel must have been 20ft long. This morning the vessel ran east. We trailed it and almost ran it to a big pile of net and corks. Too big to get aboard but lost 5 jigs and taglines. We have a pile of netting found 2 days ago. We brought it on board in good WX. We are also lucky it didn't get into the wheel. Guess theirs not too much consideration for other's around here.
Bye for now.
John – Boy

P.S
Net found: 41.26N X 168.07 E
It's fresh

Message sent to Natalie Aafa
OCTOBER 14th AFTER "FLY BY"

INET: nataliewebster@americanalbacore.com

Hi Natalie,
Wow, the coast Guard went by few minutes ago. Nice quite plane. So Cool. We wish them luck. Nice and clear were we are at. Please let me know what they find 1st thing.
Thanks for all you do.
John – Boy

I John Harder High seas troll albacore fisherman declare that I was led to believe that high seas gill-netting was banned. Upon the decision of the United Nations high seas drift nets were illegal and outlied. That would mean to me that all albacore taken from the high seas was to be taken by hook and line. The harvesting of the young fish 10-20 pounds would come from pole boats and troll boats. The deep water fish 25 pounds plus would be harvested from the long linners. I am under the impression that all wh. are involved with the fishery knew of this ruling and would uphold this law. I trusted my association and A.R.F., N.M.F.(National Marine Fisheries) with all my knowledge and logs to help benefit my fishery through hook and line only. As of the summer of 2003 to this present day of 2005 someone has been stealing our high sea stock of albacore that all my record and log speak for themselves. After 2003 each year we saw and caught less and less until now. I declare that there is not enough fish to make trolling worth while. The 11-20 pounds albacore stocks are missing or severely damaged. I ask that all records of albacore fish landed to the cannery for the last 3 years to be brought forward and validated especially sizes 11-20 pounds. In 2003 a fleet of net boats were detected by the troll boats. We passed on the information through the chain of command but that didn't stop them. Coast guard was on the scene but they still persisted. In 2004 only a few boats stayed off shore but very few stocks of fish were found to warrant the fishing.
Now 2005 only 1 small run of fish was found and most of the fish too young to harvest averaging approximately 8-10 pounds. Now that I am bankrupt or going broke and no stocks of fish for the future I'm dead in the water. Someone stole all our fish in the middle of the night, can you please catch them and bring them to justice. If not why did you lead me to believe you would. Why would I go troll fishing if I knew gill nets would be around. I had great faith and trust in my association, in the A.R.F., in my nation with N.M.F. and, in the UN to protect me. Now, I can see it was in vain, I will always have faith in God and I trust he will always be just.

I figure being the owner of Fishing vessel Miss Angie and manager and captain of fishing vessel Wolloda I figure these thieves have stolen 2million dollars from my income. Why doesn't anybody do something, is it that nobody knows.

A man once told me if you are a wise man you seek knowledge before deciding what to do, if you have a toothache you go to the dentist if you have car problems you go to the mechanic you don't buy a car from your best friend who knows a friend.....
No wise man is going to let a plumber fix his teeth so if you want to know how the albacore stocks are doing you should ask the fisherman, he has true knowledge of the fish, not a chemist or a scientist or a college student. I keep trying to pass this on but nobody wants to listen.

I testify in 2002 that our stocks were healthy as ever with the past 8 years of good fishing. Three to four major spots of fish had returned average 150 tons a season.
If you times that by 20 or 30 per boat would give us 3-5000 tons yielded by high sea trollers alone. Today's market value in Canada, whom I sell to presently is 3100 dollars per tons. That would be close to 5 hundred thousand dollars per season.

If my volume of catch can sustain the resource then the volume of the robbers' catch must be three to five thousand more. If it was only three times more per year then we looking at 10-20 thousand tons per year. That shouldn't be too hard to find I would say it would be cheap fish too. No trolling boat wants to fish around the net boat so when they appear on the ocean we move off to the east. We concentrated on stock east of 150 west knowing wasteful efforts would be to the west and no there are no more stocks.

My moral side of life on and with the ocean through God

My name is John Harder my friends call me John boy or JB. I am a troll fisherman for albacore, tuna on the highseas. I have spent most of my life on the Pacific Ocean. I come to you as world citizen. I was born in California. USA but never raised there long.
The sea took my life at the age of 8 off a beach in Guam. My brother and I were drowning and God came to me in the sea and saved me. He took my brothers life instead. I vowed to be close to him and through Jesus Christ and the church Roman Catholic Church I got to know him better. I served as an altar boy and did my share of masses. I learnt all the killings that was in the name of God and could not understand. How could God's people kill if God is love and he forbids killing.
My priest told me to search my heart and pray so I did. Then I met a family that were Bahai's at my brothers grave site. They told me about world peace one man, one God etc. It was so exciting I had a great dream of an old man smiling down at me and said, "join this faith". The next morning I was a new person.
I later went to the outer Islands and spread the word of the wonders of man, had the best time of my life where I learnt to swim and swam everyday. Later I left Guam and spent 2n years in India attending a boarding school. I did some travel teaching but later got sick with hepatitis, I was bedridden for months. I had been exposed to the third world lifestyle and how hard people's life's had become in such poverty. At the age of 12 I returned to my native land California USA, to live with my father Bill Harder. I didn't realize it at the time but I come long line of fisherman. In 1973, I fished with my grandfather Bill Harder and my uncle Greg Harder aboard the Sunra 2. We fished salmon and albacore, it was fabulous, I was so in love. How could we just drive around the ocean and haul fish aboard. This was like a miracle. This fish would follow us like puppydogs like God's gift to those who know and understand his creatures. No other of his creature of the sea do this so well and willingly.

The next year my grandfather passed away and his boat was sold. I spent the next 5 years fishing with my Uncle Greg Harder for samon and gillnet herring in San Francisco, always yearning to go tuna fishing again.
In 1979 I graduated from High School I went to work helping my uncle restore a sailing schooner named "Hispaniola" and we restored "Hispaniola" in Monterey California.
We were going to sail her around the world and catch albacore to pay our way. We had a great first season and that fueled me up for grander thing. I was then off to Hawaii for my first offshore tuna trip aboard the 'Phantom' in 1981. I was in love with the fishery, I learnt about A.R.F. in apprentices albacore foundations and how they were trying to study the movements of the fish through a tagging program. I tagged fish for both fishing vessel Phantom and Allstar senior that year.
Unfortunately, squid gill-netters got wind of the value of the tuna once they started targeting the tuna the offshore trollers suffered near extinction. I got involved in coastal fishing through the mid 80's.
By 1988, there was a new fishery underway through W.F.O.A. and the A.R.F. program, the South Pacific Fishery was born. I bought a thirty ton boat named Warlord and headed South, it was fantastic, we were now international participants from Tahiti, Fiji, New Zealand and Canada. The stocks were good and we did well. By 1991 the gillnets started

showing up and production dropped. With my new boat Miss Angie we helped A.R.F. survey the North Pacific the summer of 1991. There were no stocks left after the gillnets had finished very similar to this last season 2005.
In 1993, nets were off the ocean and fish started coming back. We put in 70 tons in approximately the same place we saw this last gill-netters. I put the word out and we became a high sea fleet once again. We grew 20 – 50 boats strong. Through the years the north Pacific regained her stocks but the South Pacific seem to fall off and became spotty after 1995, almost as if not all the fish were moving through.

When you are trolling you constantly moving at a certain speed that the fish like. You are mistaken for a whale, log that small bait like to hid close to you for protection. This lures the fish towards you. The waves on the sea and the sway of the boat gives your lures life or action. The fish then bite when they are ready. We try to stay around the area moving with the tide, the current, feed and the fish along the water temperature. changes. We have long 40foot poles sticking out the side of the boat. They are like holding their hands out in the air praising God, then he answers with a fish. We live along the tide rips among the great albatross. We watch pectral birds picking and dancing just above the waves for their food. We give everything a soul. Every fish we catch has a soul and I thank God for every one. Once you grab a line with a fish on it you become one with the fish. You are eye to eye. There are no barbs on the hooks so if your timing is off or you turn your head away and not pay attention you will lose your fish. The fish that escapes will go down and tell all his friends and they will go away. If you keep them following you they will keep biting all day long, its like being the Pipe piper of the sea. The importance of unity in the fleet amongst fisherman is very important. The openness of weather and fishing conditions sharing fish scores and areas all help to improve the fleet's production.
If fisherman get divided all drops off, the more boats that participate the better. This is where greed is tested. All in all it is an honorable sight to see the fleet working together and moving and catching fish.

We flourished again as a fleet with average boat catchers a hundred and fifty tons per season. In the year 2003, net boats were reported in 163-east area. This is like the starting block for fish migration across the Pacific from West to East. After that time nothing moved through.
God made this creature follow a boat so willingly why would he want it caught in a gillnet. I wish people could see what happens to the sea when nets have been layed. She seems violate and I feel her pain. All her creatures seem to cry out, they act bewildered and confused. The chain of life has been altered, if God was to see this and I know he does he would demand it stop.
So this is my message from the sea, God only wants man to share his kingdom as it is and as it would be in heaven. We should nurture the earth and not destroy it. We should live together in harmony and not be divided, we should learn to harvest in its time and not before.

Please stop this madness put down our weapons, hug our enemies and strive for peace. Stop fighting in our homeland where all Gods people should unite and rebuild this temple to pray in his honor. All religions come together as one and all must pray.

I spent a lot of time at sea some trips go for a hundred and fifty days, some years we only get 2 weeks on land we chase the summers going from north to south 5 months at a time. We've been through all kinds of weather, hurricanes, mechanical problems, fish prices and disputes we've seen miracles happen and never has the ocean let me down for God has always pulled me through.
We deal on the international market which go with supply and demand, our price of fish has not changed in over 20 years. I have raised 4 children on the boat showing them the South Pacific Island and New Zealand I would like to take them even further. I had a dream once of fishing around the world by Africa, South America, Australia etc as a troller. All different countries participating, I'm sure it could be done, what a great way to unite all nations, then I could go on a pilgrimage by sea and show God what an honor it would be to do his will. I truly believe this would make him proud of us all.
The oceans are what links us all and should be our bond. If we could use it as it was intended we could overcome all, for he wants all to enter his kingdom.
He has been so patient with us, we must turn ourselves to him.

Love You
John Boy

12-16

To the United Nations and all the people who make the law
To all Fisherman and people who deal with albacore and the ocean
To all those who believe in God

A grave injustice has been made. I was allowed to die again. How could mankind let all that I have done be turned around and used against me. My master above master above master's servant turn me out leaving me dead in the water like the stone cast out of the wall.
Wake up and come! We must come together and stop being divided. Unite for his kingdom please world awake to the cry of God for in God we must trust or forever die. I gave my life to God in the sea and in return he take me life and the sea to call my home. I try my best to abide by him and in turn he shows me his kingdom. My love respect and honor for the sea grew as I did. All the tasks and difficulties and sins of this world pass my way. Each one like each trip an experience greater than the last. I feel so close to him on the sea for he has never let me down and I know in my heart that he never will.
In return I cannot let him down that is why I must tell you now before all mankind great and small and to the world and all his creature I am guilty of the greatest sin of all of being spiritually blind, for I have the knowledge and I need to make sure that it is past on for everyone to know and see. Please I beg of you all to hear my cry now. Gillnets are not sustainable fishing, for it will deplete the resources.
Hook and line is a sustainable is a sustainable fishery. We cannot do both or do both. The two fishery are like black and white or day and night. One is eternal life passed on and on and on and the other one is death never to return. So "come with me and I will teach you how to fish" and you can eat or you can feed yourself and others forever or you could just take the fish and eat it now then forever starve.

The fact that we have had this knowledge for 20 years and it still exists today is proof that we cannot use our knowledge wisely for the good of all people. Wisdom then goes into the hands of evil. Then we end up killing the one that loves us most. I for one am dead in this world of man. I have been robbed and killed time and time befoe its nothing new to me, but I am letting you know now that this will not go unforgiven and this is what sets me truly free. With God and my brothers and fathers and all those before me in hopes to live an eternal life.
You can have my life here on earth but you won't take my soul or spirit. People of all nations of the world who know God stand true to him. Those who have the Holy Spirit or the light of with them make it shine!
We must take our knowledge of the world out of the hands of evil and place it in the hands of righteousness and follow the truth, no more lies. I only hope and pray my testimony here is enough proof to all that I am truly trying to abide by the will of God.
People hear this now and read my letter please do not be startled or overwhelmed, step back a bit to digest this sum.
It is a bit bold and strong, please do not take me wrong I am not accusing anyone. I am not the one who judges I am just the messenger, I am the rock, I am lower than the low I am the lowest man on the pole. I am a simple servant who humbles himself in front of all. I do not come here asking for anything, I just pray for justice to be served, but if there was justice amongst you there would be no need for me here now. Again I do not

condemn or hate anyone. If I am crying I am crying for you and not for me. We are all accounted for our own actions. The more we know the more we are accounted for. Those who know this know I pray for you, for he is the all merciful.

My Past Gill-Net Experience

I have gladly given my life for God's kingdom in the sea and for all that it stands for. The sea is of God and we must show him together that we can take care and honor her. To nurture her and show respect and then when he's happy with us and ready he will reveal another mystery or miracle or glance to a new light that will move us forward with him through God together.

There's nothing that I would like more in this world then to fish the ocean together with all nations in peace and harmony and letting nothing come between us that we cannot overcome.

I say to all fisherman who use high seas drift gill-nets know that I will love to call you friend. I am so deeply sorry that I did not come forward sooner to offer my hand, please forgive me. I for one and all my crew would gladly show you the life of troll fishing, hoping that you will fall in love with it as I have, it is such a joy. We could then fish the same method together. I'm certain you'll advance this method to your liking and certainly surpass my ability and on to greatness, that is how the growth of life was meant to be. I took what my father showed me and went 1 step further. I would hope what I show my son he would be taking one step further also.

If I follow you with the gill-net I would only be stepping back and is certain for a quick death, most of all I would be breaking my covenant with God and the sea. Thanks to God you would also be breaking the law of my birth-nation USA.

I used to be a gill-netter too, I also gave in to the greed and power of the net, California fish and game had their hands full while trying to manage us fishing for herring in San Francisco Bay. In the mid 70's they had to regulate quotas, meshsize, amounts of shackles. I fished with my Uncle Greg on my boat "Hey Mama" during the mid 80's.

Gillnetting spread up and down our coast like a plaque.

One season I was standing on the deck the fish hold was full and I was boarding up the scuppers knowing the nets were full of fish and we were going to bring in a deck load. We could just barely get our nets back safely when I wanted to set them again. My uncle was screaming at me "you are so greedy, you would rather sink the boat than leave some fish for next time". We almost sank before we reached the dock some fisherman were not so fortunate.

I felt I learnt my lesson than, it was as if I was breaking the code, like the unwritten law amongst the people that fish the sea, don't take more than the sea can give, only take what is given and leave the rest for her future.

As I was looking over the San Francisco Bay I could see that we could strip the bay of her resources.

I stepped back to hook and line fishing after that, I never wanted to go back to gillnetting since.

California fishing game are still trying to manage the herring fishery forever trying to make a sustainable fishery out of unsustainable method.

We had no idea of the devastation that was to follow. The introduction of the herring gillnets opened the demand for more permits. Soon 'general gill-net permits' mostly to Vietnamese immigrants who were looking for new fishery. They started fishing the beaches for smelt and kingfish etc. Fish and game gave out permits thinking it harmless.

When the Vietnamese fihsermen saw the rock guard or bottom fish being caught by hook and line boats, they too wanted to catch them. Before long our stock were depleted and all that remained was torn webbing snagged around our favorite rock spots.
Many US bottom fishermen ran to C.F.N.G to take their general gill-net permits. They wanted to get some fish before it was all gone. I could see that they were panicking. Nobody wanted gillnets in the rocks. Come on John they said lets get the fish before they do. I turned my back to it and mourned for them and the fish. Later the fihsing put a stop to it but it was too late. The stock South of Monterey might be coming back some now but will never be the same as it was.
The Vietnamese people had no idea what they walked into it was like a cross fire a lose-lose situation. People were putting Vietnamese down as a race, then curse them for using nets. They endured a lot of suffering and ridicule for only doing what they know best. Later after the gill nets were taken back the Vietnamese got into other fishery and prospered well. They harvested slime eels and invented an ingenious hook and line system utilizing old net reels to make a long line that would not foul or snag on the way out. The Vietnamese are so clever and so strong willed, their faith and family strength are very admirable.
After time of much pain watching whales get caught in sword fish net etc, C.F.N.G. gave into one to two miles of mesh per boat, its hard to justify the efforts.
With today's knowledge and technology combined with the greed of money and power of the gill-net we could now strip the ocean of her creatures and resources way-way faster than she could ever produce, the choice was ours and thank God USA used their knowledge wisely and stopped promoting gill-nets any further.
It seem that there was much left to kill or was there for off shore gill-netting was just getting full swing by the mid 80's and high seas trolling was becoming a thing of the past. USA fishing game, national marine fishery have this knowledge. This should have been president unto all fishing. We should have alerted the world then to hold back from gill net.

National Marine Fishery did an extensive survey in putting observers aboard high seas gill net vessels in 1991. I was doing a survey for A.R.F earlier that year and was having this very similar fishing too this last year 2005. I got a chance to talk to one of the observers aboard a gill-netter, this observer was commenting on how efficient the nets were and led me to believe that he was pro gill-netting, he went on to say that gill-netting might stop for a while then they would allow it again, something to the effect of 10 years on and 10 years off. This broke my heart, I couldn't see how anybody could see this to persist, was this some deal N.M.F. was going to make with the cannery?
Ten years later the nets returned. In 1995 I had a conversation with Denis Chamberlain. He was God rest his soul the fleet manager for Van Camps Seafood in Samoa. I was telling Denis how grateful I was for having the gill – nets stopped, he asked me what are they going to do with this 300ton boat they just built, I asked him if they would put poles on them and troll with us but he just smiled.
All was forgotten until the summer of 2003 we just finished loading a reefer ship of 400tons when gill nets were noticed in the area. My friend John Sylvester with Marine Chartering was asking me if I wanted to reorder the ship for the next month, I told John that the gill netters were in the area and things did not look good at the moment. If it

gill net boats were doing good and interested in ordering a ship for themselves. I was appalled, but sorry now could you stop them knowing that it was wrong, thanks a lot I said and John answered there's nothing I can do, there must be plenty of people caught up in this wrongful act. I feel sorry for you all, that's too bad. I tried calling out to the association. I talked to Gordon with N.M.F. in American Samoa in 2004.
I said Gordon the Gill-netters are killing me and Gordon said sorry John Boy there's nothing I can do they want you off the ocean.
So now I guess I have to find another way to make my life with the sea.I just hope & pray that all you people don't take my warning lightly.

*** THE END***

WRITTEN BY : JOHN PATRICK HARDER on the 18th November.2005 at Suva.Fiji Is.

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ENDORSED:

1-6

COP 21

"A Crown of Thorns"

The Final Blow To Off Shore (High Seas) Albacore Troll Fleet

High seas drift net fleet devastate, demolish, wipe out, not only fish and marine wildlife and mammals, but especially US and Canadian and international high seas Albacore troll fishery!

Hafa-day, Talof, Aloha, Bulla, Good day and Hello to all.

My name is John Harder of the US. I'm the owner and operator of F/V "Walloda" registered in Cook Islands #CI96/10 – HS0014003 and also F/V "Miss Angie" of the US Doc.#546377. Both boats and I were involved in high sea trolling off shore for Albacore in both North and South Pacific Oceans. It was a prosperous fishery until the driftnet boats took it over.

In October 2005 both Walloda and Miss Angie (I was the skipper for Walloda) ran across a gillnet fleet working in the North Pacific. I reported to my association AAFA and together got a Fly-by response from USCG. I took my report "Gillnet Fleet Encounter" to the second session of the WCPFC on Dec. 12, 2005 in Pohnpei, Micronesia Islands. With the help of Cook Islands delegates & PITIA representatives, I got heard. Too bad it wasn't numbered or posted for the public, but at least "Pacific Islands Tuna Industry Association: got something. I think it was around 2 million for travel exp.

I got nothing but the pleasure of meeting some nice people.

After a long hard winter fishing the South Pacific, we finally sailed from Tahiti in June 2006. We reached our traditional fishing grounds the 1st of July and by July 6th we had our first fish. Our position was only 50 miles from where we left the driftnet fleet the year before. On July 7th pos. 38:48N and 169.40E we had our first net marked fish. The fish had fresh marks and skin still bleeding. WE were crushed! My partner on the Miss Angie along side us (30-10 miles) had up to 30-40% net marked fish.

We came from the east, so we know the drift net boats were to the West. There was also a good formation in the water to the West, forming like a fish trap. I was certain that the gillnet boats were there.

On July 8th,I emailed. Through Stratos, every person I could think of. First was Natalie Webster, with the American Albacore Fisherman's Association. Then the Coast Guard, Green Peace-Lagi Toribau, Also Cook Islands- Ian Bertram, NOAA officer, Judith Fogary.I'm not sure how many got through, because not too many answered me. But thanks again to Natalie Webster for relaying with USGG.

I asked if they made any busts yet & if not, Why? And they answered we are ready with planes and cutters; just say where, so I passed on some coordinates to the West of us that looked the best.

We left the scene since it was, AGAIN, un-productive and headed to the East. The fish were beat up and marine life all messed up. Porpoise's scattered and strange acting killer whales circling the boat real slow and jumping 20 feet in the air. So sad.

On the 12th of July we got a report from another vessel that USCG did a fly by. That sparked our hopes that there may be action taken. Nothing we could do, but take pictures of our fish that dropped out of the nets.

We had no fish production until we got to 140%W where another formation of water had stopped some fish. They were gill net marked too. We took more pictures. We moved east to the 132% W where we got some production on the fish with coastal boats. Same size of fish and more net marks. We took pictures again. Many boats reported net marks in the area and even into the US coast. I think that is very good scientific data that the fish migrate W-E at a very fast pace. We trollers have been proving that for 20 years with our migration with fish stocks. Must we prove it again?

Later I heard from the Tagging program that a fish was tagged off WA, US 2006 and 3 weeks later was at 168 E. Then it stopped. Makes you wonder if it got caught in a net. This year, 2007, another tag was received close to Japan. History repeats itself.

After our regrouping in October 2006 in Vancouver, BC and outward bound; Canada's border patrol plane did a fly-by on us. I spoke to fisheries personnel for some time. He asked me about the fishing and I told him how we are going out of business with the gill-netters. He then thanked me for the tip on the positions and said some 20+ gill net boats were spotted. He further said how other nations got involved and even Russia kicked some ass. That's great, but that does me no good now. It's too late!

They'll be back if we don't take up the "catch documentation scheme". I sure wont' be around to help, unless I get some help myself. Besides, Something died inside of me.
In my report in 2005 I asked for nothing except my fish back and everything to be as it was, or should. Instead, driftnet boats were stronger than ever. I feel betrayed.

Now I want compensation. I stated I my 2005 report that 2 million of my income was taken from me. I figure another 2 million for past 2 years of loss. Not to forget the years to come. I also must mention the mental anguish I went through and am still experiencing.

I am asking for 4 million dollars from the owners, or countries, or those who are responsible in this organized crime of the drift boats. I would like to settle in a peaceful way and be done with it. I don't want to, but will, press charges, or go threw the tribunal if I must. I'll want the public to hear about this too. All must be brought into the light.

This year, 2007 twelve drift net boats were reported that I know of. USCG made a bust on sep 10th.According to Capt. Jeff Manney in the Victoria Times, published on sep.29th, 2007.10 vessels were photographed. Involved with illegal driftnet fishing... and the slaughter and rape continue on our ocean!

Let my logbooks, USCG reports, and NPAFC reports are my proof of ill eagle high seas drift netting in the north pacific.

I would like to give some examples, if I may. Say you had a small market, or store somewhere suddenly a bunch of hoods came in and ransacked the store and robbed you. You call the police and they respond. They finally catch the gang and put them in jail. Arena they made to pay for what they have stolen and wrecked? What if the police said "Oh, well, too bad!" or came by a week later and then it was too late to catch anyone. What if the police caught the thugs, then just let them go and they robbed you again, only this time they stick a bullet in your head!

What if you & your tribe of people were living on the open plains? Your main life-style was to follow the hoards of buffalo around for food & clothing. Then some crazy people came along & slaughtered all the Buffalo. You and your family are left to perish

Is this sounding familiar? Where is the justice?

This is not just a report on gill net boats actively fishing. It's a cry for help. These gill net boats have harmed me and my fishery immensely. Not to mention others like me. What people are doing to prevent this is not working. It is not nearly enough. We need the catch, or we desperately need to adopt "catch documentation scheme".

Yours Truly, John Harder

Some Questions

1. Were there any repeat offenders from 2005 that were spotted in 2006 & 2007?

2. What is the "deal"(trade agreement, foreign policy) between China and us that everyone seems to know but me?

3. Why don't China, Japan, Taiwan, and Korea try Troll fishing? (Gillnetting isn't fishing, &It's dishonorable!) Might as well nuke them out of the water)

4. * Is Japans trade Co. involved with brokering fish for boats busted in 2006 and 2007? What countries?

5. Where were the fish heading to and what market? Is there any involvement in U.S. Markets? (Van camp, Bumblebee and Star-Kist)

6. Who are the owners of these vessels? (Primarily)

7. How much in their storage? (Salmon, swordfish, ECT?)

8. What legal action is being taken on the boats caught in 2006?

9. * Why did US State dep. let gill net Capt. go on Guam (Not sure about year) without prosecution?

10. Why shouldn't we prosecute now?

11. Shouldn't there be a reward for aiding and assisting the arrest of IUU vessels? A bounty on their heads? What about repeat offenders?

12. U, S, NMF is giving money to salmon fisherman for loss income this year. What about High Seas fishermen? They have lost income for the past 7 yrs. They receive nothing?

13. Why dose NMF, NOAA, ARF, ECT develop a fishery, then allow it to be taken away by illegal driftnet operations?

14. Why aren't there sanctions on these countries that are involved in illegal drift netting?

6-6

CALIFORNIA JURAT WITH AFFIANT STATEMENT

State of California

County of _____ } ss.

☑ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–5 to be completed only by document signer[s], *not* Notary)

_____
Signature of Document Signer No. 1

_____
Signature of Document Signer No. 2 (if any)

STATE OF CALIFORNIA
COUNTY OF MONTEREY

Subscribed and sworn to (or affirmed) before me on this 15th day of November, 2007, by

(1) John Harder,
Name of Signer

☐ Personally known to me
☑ Proved to me on the basis of satisfactory evidence to be the person who appeared before me (.) (and

(2) _____,
Name of Signer

☐ Personally known to me
☐ Proved to me on the basis of satisfactory evidence to be the person who appeared before me.)

RAMON N. VALLEJO
COMM. #1660340
NOTARY PUBLIC - CALIFORNIA
MONTEREY COUNTY
My Comm. Exp. May 21, 2010

_____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document

Further Description of Any Attached Document

Title or Type of Document: "A Crown of Thorns" The Final Blow to Off Shore (High Seas) Albacore Troll Fleet

Document Date: Nov. 15. 2007 Number of Pages: FIVE

Signer(s) Other Than Named Above: _____

RIGHT THUMBPRINT OF SIGNER #1	RIGHT THUMBPRINT OF SIGNER #2
Top of thumb here	Top of thumb here

RANTS FROM THE ROOKERY

FRIDAY, SEPTEMBER 28, 2007

Drift net fishing is illegal

You've got to leave some to grow up and have little fish, right?:

An air patrol mission has discovered nearly 100 foreign ships apparently illegally fishing with drift nets off Canada's West Coast.

Cameras on a Canadian air force plane captured images of 90 fishing vessels suspected of breaking a 15-year-old United Nations ban on using drift nets in international waters — fishing meshes as long as 50 kilometres.

[snip]

Earlier in September, fisheries officers from Canada and the United States spent two weeks aboard the Canadian Forces aircraft, scouring millions of square kilometres over the North Pacific. Operation Driftnet concluded last week.

When the plane began monitoring one Chinese vessel, the active radio chatter they had been listening to suddenly became "dead silent," Bard said.

"As soon as we showed up, the radios became dead silent. The only thing we heard — or our translator heard — was, 'We're getting out of here.' "

ABOUT ME

ELLROON
SOUTHERN CALIFORNIA, UNITED STATES

VIEW MY COMPLETE PROFILE

PREVIOUS POSTS

[snip]

The Aurora crew found that in some cases, ships could be spotted dumping material overboard and trying to cover markings that identified their boats.

"Ten vessels were observed by Canadian Aurora long-range patrol aircraft either rigged for or engaging in high seas drift-net fishing", said Capt. Jeff Manley of the Canadian Air Reserve.

"These vessels typically sail with few or obscured markings, so without actually boarding them, it's difficult to ascertain their nationality," said Manley. "These vessels target species such as salmon, albacore and neon flying squid."

In 1992, the United Nations General Assembly put a moratorium on drift net fishing, which has been blamed for the indiscriminate destruction of marine life.

The Chinese government takes the problem seriously, and has its own enforcement officers on board U.S. Coast Guard ships, said Ted McDormand, an ocean law expert from the University of Victoria.

"China's had this memorandum with the United States since 1993, which came right after the General Assembly resolution on the moratorium, so China's stepped up here to be a reasonably responsible fishing state," he said.

Using the Canadian surveillance, the U.S. Coast Guard was able to intercept a Chinese trawler, board it and then turn the boat over to Chinese authorities.

International surveillance of the waters is a collaborative effort with Canada, Russia, Japan, Korea and the U.S. The seasonal surveillance mission over the North Pacific has been conducted every year since the 1992 UN moratorium

Leave some fish for the rest of us, please.

Labels: Canada, China, Drift Nets, Fish, Operation Driftnet

POSTED BY ELLROON AT 9/28/2007 12:19:00 PM

0 COMMENTS:

international debate education association

Driftnets

Send to Printer

Summary: Should there be a worldwide ban on the use of driftnets to catch fish, including within each country's Exclusive Economic Zone?

Introduction

Author: Daniël Schut (Netherlands)
Daniël Schut was both a Worlds and Euros ESL finalist in 2006 and won the Oxford IV ESL final in 2005. He lives in Amsterdam.

Created: Monday, December 31, 2007
Last Modified:

Context

Context
Driftnets are a special type of fishing nets that are held on or just below the surface of the water, with the help of floating-devices. Their height varies according to the fish species they target but is generally somewhere between 20 to 30 meters. They are weighted at the bottom so the net "stands" vertically in the sea. They usually target what marine biologists refer to as "pelagic" species – those swimming close to the surface of the water, such as sardines, herring, albacore, swordfish and salmon.
Large driftnets are in use worldwide, even though the United Nations passed a resolution in 1992 banning their use in international waters (those more than 200 nautical miles from any coast). The UN also requested a worldwide halt to the use of driftnets outside of international waters, so that they would not be used within the Exclusive Economic Zone (EEZ, up to 200 nautical miles off the coast) each country maintains under international law, but this had little to no effect. For example, the USA still allows indiscriminate use of driftnets in its Exclusive Economic Zone. The EU has regulated driftnets to a maximum length of 2.5 kilometers, and controls their use with regard to specific species and regions (for example, in the Baltic region there's a ban for tuna, but not for salmon, whereas in Italy fishing for tuna still takes place). These EU "regulations" are the starting point for a process which was supposed to gradually lead to a total ban on their use at the end of 2007.

Arguments

Pros	Cons
Driftnets are indiscriminate in their ability to net any sea creature in the area they target, and so have a disastrous impact on the oceans. Banning driftnets would hugely reduce "by-catch". By-catch refers to all those species that are ensnared by these nets other than their intended prey. Examples include dolphins and porpoises: they get caught in the net, die and then thrown away as a type of "collateral damage". This drives species to extinction and this hurts biodiversity: the Moroccan driftnet-fleet of 177 boats alone is said to be responsible for 3000–4000 deaths of a certain threatened dolphin species.	By-catch doesn't need to be a reason to ban driftnets. In fact, when used well, drift-nets can have a minimum of by-catch, and certainly no more than other fishing methods. By catch can be limited by restricting the size of the mesh in the net, so that dolphins "recognize" the net as a "wall" of sorts and so avoid it, or by attaching sound-devices which emit "pings" (hence called "pingers") to warn dolphins. Limiting the overall length of driftnets, as the EU has done, can also minimize by-catch. This all points to regulating rather then banning driftnets altogether.
By-catch isn't the only problem of driftnets. The other problem is the species they are intended to catch. These driftnets are so effective that their use actually pushes these species to the brink of extinction. Already, bluefin tuna-catches in the Mediterranean have dropped by over 80%, and many experts fear its extinction in the coming decade.	The reports of extinction through over-fishing are inconclusive and based on anecdotal evidence. Even if catches have dropped so much, it can have different causes: for example, tuna are a highly mobile species, and maybe they have fled to the high seas where there is a ban on driftnets already. Or maybe it is the massive pollution caused by the Mediterranean's sea-traffic.
The driftnets that the local poor might use are nothing compared to the massive commercial fleets, first employed in the 1980s by Japan, Korea and Taiwan. These use driftnets to basically "strip mine" the seas with nets sometimes up to 40 miles wide, draining them of all fish before even the local fishermen can get to it. Poor local fishermen also have an interest in banning driftnets: they would prefer a healthy fish stock to feed future generations,	All talk about biodiversity and poor dolphins and fish is nice, but should be considered against the fact that for many people, driftnet fishing is their only means of subsistence. Banning driftnets would spell starvation for them. That's why, for example, in the 1980s the UN Food and Agriculture Organization actually recommended and helped with the use of driftnets in Bangladesh. The use of driftnets there increased the number of fish caught by about 45%,

rather than exhausting and driving into extinction their livelihood within a few years. Besides, in Bangladesh, driftnets account for about 30% of all fish caught, meaning that there are enough alternatives.

at a 40% lower cost, providing a vital means of subsistence to the locals.

A country's Exclusive Economic Zone stretches 200 nautical miles from the coastline. In fact, because of the gradual sloping-away of the sea-bottom from the coast, this zone of 200 miles forms a unique habitat for about 90% of known fish species, meaning that "the high seas" provide no escape. Besides: who is going to check and patrol to see if all those "domestic" industrial fishers really keep within the EEZ? The UN has no police force to enforce its rules. Interestingly enough, Japan, for example, banned the use of driftnets inside its territorial waters (up to a maximum of 12 miles out of the coast), but their commercial fleet regularly shows up everywhere in the North Pacific. This is exactly why, when instituting the ban on international waters, the UN made a strong appeal to its member states to also ban it in their EEZ and territorial waters.

There is a ban on the use of driftnets in international waters already. This should be enough: it provides fish with enough "breeding space" to recover from overfishing. If some countries then decide to overfish and thereby exhaust certain species of fish within their own Exclusive Economic Zone, then that is their sovereign right to do so. Apparently their government and population thought catching these fish was more important then biodiversity, and the international community has no business intervening in these domestic issues. As long as the high seas are "safe", there is no problem.

Motions

This House would enforce a worldwide ban on driftnets
This House would do more to protect marine wildlife
This House would save the tuna
That driftnets should be banned within each country's Exclusive Economic Zone

Useful Sites

- A very neat explanation of what driftnets are by the EU
- United Nations General Assembly resolution
- International Council for Exploration of the Sea, an intergovernmental organization concerned with marine and fisheries science, with mainly North Atlantic members
- International Council for Exploration of the Sea report on driftnets
- The Whale and Dolphin Conservation Society on driftnets
- A report on the use of driftnets by the Moroccan fleet by Oceana, an organization dedicated to protecting the worlds oceans
- Fisheries research
- Greenpeace Foundation Driftnet campaign
- UN Division of Oceans and the Law of the Sea

Useful Books

- World Fisheries Resources (Ocean Management and Policy)
  by James R Coull
- Regulation of Driftnet Fishing on the High Seas: Legal Issues, Legislative Studies; No. 47
  by E. Hey & W.T. Burke
- Fisheries Management: Progress toward Sustainability
  by Tim McClanahan
- Fish Conservation: A Guide to Understanding and Restoring Global Aquatic Biodiversity and Fishery Resources
  by Gene S Helfman
- The United Nations resolutions on driftnet fishing: An unsustainable precedent for high seas and coastal fisheries
  by W.T. Burke

Themes

Environment and Animal Welfare

NEW INTERNATIONALIST

New Internationalist 325 | July 2000

Fish / **TUNA**

The Great Tunafish Sandwich Hunt

The US appetite for tuna knows no bounds - as a history of piracy, trade wars and frosty international relations has shown.

Object of desire

South Pacific islanders were the first to venture out in search of tuna during the Stone Age. Today, tuna is a popular sandwich-filler for Americans. Over half of the tuna caught in the South Pacific is shipped to the US.

Tuna's Christopher Columbus

MICHEL GUNTHER / STILL PICTURES

The Portuguese showed North Americans how to catch the crafty tuna, teaching Californians to chum (attract and keep the fish near ships by throwing live bait overboard) and string lines from boats. But consumers had not heard of tuna till 1903 when a Californian fish packer was having trouble getting enough sardines and began processing albacore tuna instead. Customers liked the 'white meat' fish and more canneries sought tuna. In 1932 the 'Christopher Columbus of tuna', Joaquin Medina, set out from San Diego in the largest fishing vessel of the time, the *Mayflower*. He travelled almost 14,400 kilometres and fished for yellowfin tuna around Hawaii. Four years later, in a tuna clipper named *Cabrillo*, he sailed to the Marquesas and the Galapagos Islands and returned with even greater catches, stimulating more interest in long fishing expeditions.

Enter the big net

US fishers were the first to adopt the purse-seiner - boats with a giant net which sweeps up everything in sight including dolphins, sharks, coral and other fish species. Fisher Lou Brito started the craze in 1958 when his *Southern Pacific*, the first purse-seiner to operate from San Diego, returned with a large catch. In the next five years, 97 tuna-boats were converted to purse-

seiners.

North American fishers also reaped the rewards of a US Government position that claimed that tuna were not located within any country's national jurisdictions. Seizure of US boats for illegal fishing did not deter the poaching - the US Government punished countries seizing American ships by reducing its foreign aid. For a period of about 25 years, US purse-seiner fishers were able to fish where they liked and how they liked - without paying a cent in compensation.

Dead dolphins aren't fun

Until the 1980s the US primarily fished in the Eastern Pacific, where tuna and dolphins swim together. About 400,000 dolphins were killed each year in nets of the US tuna fleet - then the largest in the world. But Sam La Budde's dramatic footage of dolphins dying in tuna nets, filmed by him while working undercover on a Panamanian tuna-boat, sparked popular outrage. In January 1988, environmentalists launched a successful consumer boycott of three major tuna processors in the US - Heinz's Star Kist label, Chicken of the Sea and Bumble Bee - which announced in 1990 they would no longer accept tuna caught in nets that kill dolphins. 'Tuna is fun food,' explained Ted Smyth, Vice President of Heinz, who referred to its common use in kids' sandwiches. 'If it's associated with the harassment and killing of a noble creature like the dolphin, that's not right.'

Tuna Wars: round one

Beginning with scuffles over US illegal fishing in the early 1980s, the US-Mexican 'tuna war' became global in the late 1980s. Under pressure from environmentalists, the US embargoed Mexico for producing tuna that was dolphin-unsafe. Initially, this had little economic effect on the Mexican tuna fleet - now the largest in the world, supplying the big markets of Europe and Japan. But on 20 April 1991, the US extended the ban to all European countries that brought Mexican tuna to can and re-exported it to the US. This affected $4-5 million worth of exports from France, Italy and Britain. The Mexican Government, followed by Europe, took the US to the General Agreement on Tariffs and Trade (GATT) Panel which ruled that 'regulations governing the taking of dolphins incidental to the taking of tuna could not possibly affect tuna as a product' and that countries could not embargo a product for how it is produced. But GATT's ruling was never enforced and the US was let off the hook.

A touch of arrogance

As controversy raged in the Eastern Pacific in the 1980s the US fleet headed west. But South Pacific nations soon became fed up with continued poaching and the US found itself in another tussle over tuna. Despite ship seizures, the US was still aloof to local concerns until Kiribati gave the USSR access to its fishery for a fee of $1.5 million a year. The Pentagon panicked about this Soviet encroachment into 'friendly waters'. According to *Island Business*: 'It spurred the US to work harder for a multilateral treaty. At previous talks, the Americans had displayed what island delegates initially described as a good deal of ignorance, insensitivity and more than a touch of arrogance.' Signed in early 1987, the subsequent fishing agreement established a programme of payments for regional economic development.

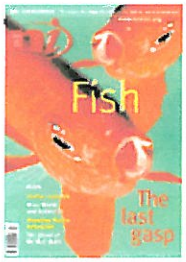
Globalization in a can

Today, tuna consumed by US customers may have been harvested in the South Pacific, shipped to Thailand, bought on the spot market, canned in a plant leased to one corporation, then labelled and distributed by another.

Canneries founded in Puerto Rico in the 1970s lost an average of 1,000 jobs per year in the 1980s when tuna processing shifted to American Samoa - popular for its favourable tax rates, easy export to the US and cheaper labour. The Pago Pago canneries consumed around a third of water and electricity supplied by the Government, leaving the country dependent on US aid.

Globalization of the industry became complete in the 1990s as the canners turned to booming Asia. Asian-based firms bought two of the big three canned-tuna companies - Bumble Bee and Chicken of the Sea. Half of the world's canned tuna is caught in the South Pacific, but 95 per cent profits of fishing tuna go to the US, Taiwan, Japan and Korea. Just three corporations supply 90 per cent of the fish that makes up an American icon - the tunafish sandwich.

Sources:
Alessandro Bonanno & Douglas Constance,
Caught in the Net: The Global Tuna Industry,
Environmentalism and the State (University Press of Kansas, 1996).
DJ Doulman, *Tuna Issues in the Pacific Islands Region* (East-West Center, 1987).
Encyclopedia Brittanica online: www.britannica.com



Press Release

Illegal driftnets continue to kill thousands of dolphins, says WWF report

For Release: Nov 19, 2003
Martha Wilson
martha.wilson@wwfus.org
202-778 9517

Washington, D.C. - World Wildlife Fund (WWF) today warned that illegal driftnets are still killing thousands of dolphins - and other vulnerable species - every year in the Mediterranean, despite the European Union's ban on driftnet fishing from 1 January 2002, and UN moratorium on large scale driftnets from 1992.

A new WWF report, Biodiversity impact of the Moroccan drifnet fleet in the Alboran Sea, reveals that, with 177 boats, the Moroccan driftnet fleet is the most lethal for Mediterranean marine biodiversity. Dolphins are its prime bycatch victims. Between 3,000 and 4,000 striped and short-beaked common dolphins, a species that was recently included on the IUCN Red List of Threatened Species, are estimated to be caught every year in the Alboran Sea, in the Southwestern Mediterranean, alone. This is more than 10 percent of the area's dolphin population. According to WWF, a further 13,000 individuals are estimated to be caught around the Straits of Gibraltar and in neighbouring zones. The conservation organization stresses that Italian, French, Turkish and most probably other fishing fleets are using driftnets in breach of existing legislation.

The Italian driftnet fleet - with about 700 boats in the early 1990's - received subsidies from the EU for restructuring the fleet, but there are still up to 100 non-compliant boats. France (75 non-compliant boats), and Turkey (100) also have a sizeable driftnet fleet.

"The evidence we have gathered on the Moroccan fleet brings us to think that illegal driftnet fishing currently happening in the whole Mediterranean results in a massive slaughter of vulnerable species," said Paolo Guglielmi, Head of Marine Unit at the WWF Mediterranean Programme. "Nearly 2,500 miles of illegal nets from the Moroccan, French, Turkish and Italian drifnet fleets are ensnaring all that gets in their way."

Driftnets run for miles. Each net could be anywhere between 4 and 9 miles long. According to the WWF report, about 23,000 sharks are also captured annually by the Moroccan driftnet fleet in the Alboran Sea, and another 77,500 are caught in the neighbouring areas. It has been calculated that one shark is caught for two swordfish, the main catch of the Moroccan fleet. Loggerhead turtles are also affected by the country's driftnet fisheries.

WWF urges the EU to monitor and prosecute all the fleets of its member states

using driftnets. WWF also calls on the General Fisheries Commission for the Mediterranean, and non-EU countries, particularly those in North Africa, to introduce urgent legislation banning these nets. This call comes ahead of the Diplomatic Conference on Mediterranean Fisheries, to be held in Venice on 25 November.

"The only valid way to prevent the massacre of dolphins, sharks and other marine species caused by these driftnet fleets in the Mediterranean is to make it a driftnet-free sea by enforcing a total ban on all the drifnet fisheries in the region," said Scott Burns, director of the WWF-US Marine Conservation Program. "The EU must urgently help all Mediterranean countries put in place plans to convert their driftnet fleets."

AMERICAN ALBACORE FISHING ASSOCIATION
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April 8, 2010

PACIFIC FISHERY MANAGEMENT COUNCIL
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery

Mr. Chairman and members of the Council,

The American Albacore Fishing Association (AAFA) represents American commercial fishermen that participate in the west coast troll and pole & line (baitboat) albacore fishery.[1]

AAFA is an association of fishermen who understand and support responsible management to maintain sustainability and improve the fishery's future for fishermen, fishing families and the vital coastal communities that rely on them.

Background

AAFA fishermen account for a significant majority of the albacore landings of this fishery. In any given season, their vessels will offload albacore at a number of communities up and down the west coast.

These same fishermen dock their vessels in U.S. ports and live in nearby communities. They value and respect this fishery and its generations' long tradition of mentoring crewmembers into Captains and vessel owners. This tradition reflects handing down knowledge and skills essential to this artisanal fishery.

Current Situation

International resolutions call for nations to "*ensure that the level of fishing effort by their vessels*" does not increase. We know that U.S. effort has *not* increased, but apparently there is nothing in place to *ensure* that it does not increase.

[1] AAFA is founded upon the belief that by fostering the environmental benefits of the troll and bait-boat (pole & line) fishery and promoting the health benefits of tuna consumption, the continued economic viability of these traditional and sustainable "pole & troll" fisheries can be achieved.

PACIFIC FISHERY MANAGEMENT COUNCIL
Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery *(Cont'd)*

A Problem with Pelagics

As a pelagic species, albacore are subject to fisheries of a number of countries. Unilateral efforts by the U.S. will have little effect on management of the overall stock. International management action is necessary to achieve a unified approach to ensure sustainable fisheries. AAFA supports stronger U.S. efforts to lead international discussions to develop such measures.

The Southwest Fisheries Science Center, HMS Management Team and Advisory Subpanel have indicated that 1996-2005 is an appropriate period for characterizing "recent" effort, and that an "*effort band*" derived from that period would allow for interannual variations while providing appropriate guidance to prevent an undesirable increase in effort. AAFA believes this "effort band" characterization of the U.S. fishery merits further consideration.

AAFA supports responsible management measures that recognize the significance of this fishery and seek to continue its traditions and sustainable practices for future generations of U.S. fishermen.

Accordingly, as the Council considers effort limitation measures and a control date for the U.S. albacore fishery, AAFA respectfully submits its position, as follows, for the Council's consideration.

Regardless of whether the Council decides to use the "*old*" control date or to apply a "*new*" control date:

1. The Council should not sacrifice U.S. fishermen and this albacore fishery while foreign fleets and IUU fishing continue unabated. It is unacceptable to tell a U.S. fisherman to stay tied to the dock while foreign vessels continue fishing the same stock. The U.S. *should* lead discussions toward effective international management, but the Council should not allow this traditional fishery to be sacrificed as a unilateral reduction;

2. AAFA believes catch shares are not appropriate for albacore;

3. It is important to recognize that an Annual Catch Limit (ACL) or other quota system is not appropriate for this fishery. The SWFSC "effort band" provides a more thorough characterization of effort for this fishery and its variations and should be revisited;

4. Tradition is a fundamental part of albacore fishing and this fishery. It is vitally important for the Council to protect tradition by providing a path for the next generation of fishermen to enter the fishery and continue this artisanal fishery;

5. Any management action for the albacore fishery should account for all HMS gear types, and should seek to prevent undesirable shifts in effort and gear that may result;

PACIFIC FISHERY MANAGEMENT COUNCIL
Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery
(Cont'd)

6. Any effort limitation for the pole & troll albacore fishery needs to recognize and provide for traditional "opportunistic" fishery participants. These are troll and baitboat fishermen who may not fish for albacore every year but, depending on conditions, may fish albacore with some regularity over the years;

7. The Council should provide a way to include vessels in the fishery if they have more than some minimum level of landings over the years;

8. Similarly, the Council should provide a way to filter out those vessels that have zero or only minimal/token landings over the years;

9. If the Council decides to go forward with some form of limited access, it should study and learn from the pitfalls of other limited access management programs and ensure that any program developed for this albacore fishery will succeed where other programs have failed. These pitfalls include a "race to fish", absentee ownership, consolidation of ownership of access and high capital costs for entry or to remain competitive.

10. Consider imposing a moratorium on the issuance of new HMS permits for a period of time (e.g. 5 years). This could help improve the accuracy of the HMS permit database and provide time to better define the participants in the albacore fishery. It could also help prevent sudden and undesirable increases in fishing effort, in accordance with international resolutions.

AAFA urges you to keep these suggestions in mind as you consider the important subject of possible effort limitation in the albacore fishery. Thank you.

Sincerely,

Jack Webster, President
American Albacore Fishing Association

PACIFIC FISHERY MANAGEMENT COUNCIL
Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery
(Cont'd)

John S. Webster (signature)
JOHN G WEBSTER (print name)
F/V: MILLIE G
Length: 54 (feet)
Capacity: 45 (tons)
Albacore gear(s) fished: __Pole __Troll ✓Both
Albacore fisherman for 30 years

Robert Sarche (signature)
Robert Sarche (print name)
F/V: Four C's
Length: 60 (feet)
Capacity: 40 (tons)
Albacore gear(s) fished: __Pole ✓Troll __Both
Albacore fisherman for 35 years

(signature)
John Josephs (print name)
F/V: Sea Spirit
Length: 52 (feet)
Capacity: 20 (tons)
Albacore gear(s) fished: __Pole ✓Troll __Both
Albacore fisherman for 30 years

Tim Thomas (signature)
Tim Thomas (print name)
F/V: Steel Fin II
Length: 58' (feet)
Capacity: 30+ (tons)
Albacore gear(s) fished: __Pole __Troll X Both
Albacore fisherman for 35 years

(signature)
Steve Rittenberg (print name)
F/V: Nicole Marie
Length: 67 (feet)
Capacity: 50 (tons)
Albacore gear(s) fished: X Pole X Troll X Both
Albacore fisherman for 35 years

Gary Moosler (signature)
Gary Moos lin (print name)
F/V: Blue Dolphin
Length: 53 (feet)
Capacity: 10 (tons)
Albacore gear(s) fished: __Pole X Troll __Both
Albacore fisherman for 10 years

(signature)
Rex Olander (print name)
F/V: Sidewinder
Length: 50 (feet)
Capacity: 20 (tons)
Albacore gear(s) fished: __Pole X Troll __Both
Albacore fisherman for 30 years

PACIFIC FISHERY MANAGEMENT COUNCIL

Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery

(Cont'd)

Signature / Print name	Vessel	Albacore gear(s) fished	Albacore fisherman
(signature) [signature] (print name) Sean Ensoy	F/V: Gladwill Length: 60 (feet) Capacity: 32 (tons)	__Pole __Troll X Both	for 20 years
(signature) [signature] (print name) MATTHEW O'DONNELL	F/V: ROSE MARIE Length: 50 (feet) Capacity: 20 (tons)	__Pole __Troll X Both	for 25 years
(signature) Carl Nish (print name) Carl Nish	F/V: Lydorein Length: 73 (feet) Capacity: 50 (tons)	X Pole __Troll X Both	for 50 years
(signature) Paul M Hawkins (print name) PAUL M HAWKINS	F/V: SEA CHASE Length: 52 (feet) Capacity: 27 (tons)	X Pole X Troll X Both	for 51 years
(signature) Tom Wraith (print name) Tom WRAITH	F/V: Amy Lyn Length: 54 (feet) Capacity: 24 (tons)	__Pole __Troll X Both	for 38 years
(signature) Jack B Vantress (print name) Jack B Vantress	F/V: Seawind Length: ____ (feet) Capacity: ____ (tons)	__Pole X Troll __Both	for 50 years
(signature) Harry McMaster (print name) ____	F/V: Captain Banjo Length: ____ (feet) Capacity: ____ (tons)	__Pole __Troll X Both	for 30 years
(signature) [signature] (print name) Irby Elliott	F/V: Phantom Length: 60 (feet) Capacity: 40 (tons)	✓ Pole __Troll X Both	for 30 years

PACIFIC FISHERY MANAGEMENT COUNCIL
Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery
(Cont'd)

(signature)
Steve Moore
(print name)
F/V: Rose Mar
Length: 50 (feet)
Capacity: 2cx (tons)
Albacore gear(s) fished: __Pole __Troll X Both
Albacore fisherman for 5 years

(signature)
BRENT BIXLER
(print name)
F/V: ROYAL DAWN
Length: 78 (feet)
Capacity: 70 (tons)
Albacore gear(s) fished: __Pole __Troll X Both
Albacore fisherman for 36 years

(signature)
Scott Hawkins
(print name)
F/V: Jody-H
Length: 69.9 (feet)
Capacity: 60 (tons)
Albacore gear(s) fished: X Pole X Troll X Both
Albacore fisherman for 39 years

(signature)
Nathan Lee
(print name)
F/V: Two Captains
Length: 58.6 (feet)
Capacity: 30 (tons)
Albacore gear(s) fished: __Pole __Troll X Both
Albacore fisherman for 5 years

(signature)
Brett Rountree
(print name)
F/V: Ana Marie
Length: 60 (feet)
Capacity: 35 (tons)
Albacore gear(s) fished: __Pole __Troll X Both
Albacore fisherman for 4 years

(signature)
KRIS SAMUELSON
(print name)
F/V: Dos Ninas
Length: 46 (feet)
Capacity: 14 (tons)
Albacore gear(s) fished: __Pole __Troll X Both
Albacore fisherman for 10 years

(signature)
ERIC HOFFER
(print name)
F/V: Kyirstin Nicole
Length: 58 (feet)
Capacity: 25 (tons)
Albacore gear(s) fished: X Pole X Troll X Both
Albacore fisherman for 25 years

(signature)
RICHARD MEYER
(print name)
F/V: Resolution
Length: 55 (feet)
Capacity: 29 (tons)
Albacore gear(s) fished: X Pole __Troll __Both
Albacore fisherman for 12 years

PACIFIC FISHERY MANAGEMENT COUNCIL
Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery
(Cont'd)

(signature)
(print name)
F/V: Her Grace
Length: 70 (feet)
Capacity: 60 (tons)
Albacore gear(s) fished: X Pole X Troll X Both
Albacore fisherman for 30 years

(signature)
ARTHUR R LORTON
(print name)
F/V: SEATHAVEN
Length: 67 (feet)
Capacity: 50 (tons)
Albacore gear(s) fished: X Pole X Troll X Both
Albacore fisherman for 30 years

(signature)
Stan Davis
(print name)
F/V: Nightwind
Length: 73 (feet)
Capacity: 57 (tons)
Albacore gear(s) fished: X Pole X Troll X Both
Albacore fisherman for 45 years

(signature)
JEFFREY P. VOUAUX
(print name)
F/V: CHARLOTTE
Length: 63 (feet)
Capacity: 40 (tons)
Albacore gear(s) fished: X Pole X Troll X Both
Albacore fisherman for 5 years

(signature)
ERIK SHOGREN
(print name)
F/V: ALUTIAN STORM
Length: 58 (feet)
Capacity: 30 (tons)
Albacore gear(s) fished: ✓ Pole ✓ Troll ✓ Both
Albacore fisherman for 20 years

(signature)
David Shogren
(print name)
F/V: ALEUTIAN Storm
Length: 58 (feet)
Capacity: 30 (tons)
Albacore gear(s) fished: ___ Pole ___ Troll ✓ Both
Albacore fisherman for 49 years

(signature)
JON KLEIN
(print name)
F/V: KAREN JAN
Length: 56 (feet)
Capacity: 28 (tons)
Albacore gear(s) fished: ___ Pole ___ Troll X Both
Albacore fisherman for 35 years

(signature)
Marcus Eaddy
(print name)
F/V: Midori
Length: 54 (feet)
Capacity: 26 (tons)
Albacore gear(s) fished: ___ Pole ___ Troll ✓ Both
Albacore fisherman for 5 years

PACIFIC FISHERY MANAGEMENT COUNCIL
Re: Agenda Item G.3 - Consideration of Effort Limitation in the Albacore Tuna Fishery
(Cont'd)

[signature] (signature) Connie Hill (print name) | F/V: Dalena Length: 99 (feet) Capacity: 130 (tons) | Albacore gear(s) fished: __Pole X Troll __Both | Albacore fisherman for 15 years

[signature] (signature) PAUL HILL (print name) | F/V: BETTY H Length: 85 (feet) Capacity: 67 (tons) | Albacore gear(s) fished: X Pole X Troll __Both | Albacore fisherman for 40 years

[signature] (signature) LYNN CRUMP (print name) | F/V: Billie Marie II Length: 69 (feet) Capacity: 45 (tons) | Albacore gear(s) fished: __Pole X Troll __Both | Albacore fisherman for 31 years

[signature] (signature) Harlan Matthews (print name) | F/V: Alliance Length: 57 (feet) Capacity: 25 (tons) | Albacore gear(s) fished: X Pole X Troll __Both | Albacore fisherman for 17 years

______ (signature) ______ (print name) | F/V: ______ Length: ______ (feet) Capacity: ______ (tons) | Albacore gear(s) fished: __Pole __Troll __Both | Albacore fisherman for ______ years

______ (signature) ______ (print name) | F/V: ______ Length: ______ (feet) Capacity: ______ (tons) | Albacore gear(s) fished: __Pole __Troll __Both | Albacore fisherman for ______ years

______ (signature) ______ (print name) | F/V: ______ Length: ______ (feet) Capacity: ______ (tons) | Albacore gear(s) fished: __Pole __Troll __Both | Albacore fisherman for ______ years

______ (signature) ______ (print name) | F/V: ______ Length: ______ (feet) Capacity: ______ (tons) | Albacore gear(s) fished: __Pole __Troll __Both | Albacore fisherman for ______ years

John-boy

From: "Ian Brown" <idecals@mts.net>
Date: Saturday, April 10, 2010 4:33 PM
To: <john-boy@sustainabletuna.com>
Subject: High seas driftnet fishery

Hi John

My name is Ian Brown, I am a retired Canadian DFO officer, the one who worked with your Richard Severtson on the high seas salmon undercover operation. We were well aware of the problems and so were the governments involved, nothing has really changed. I find it incredible that all of North America is simply being run through the mill and the corruption is so deep that our own people can't do a dam thing. Good to see you trying to do something, maybe I can help. If you can think of something let me know. Ask your counterparts to watch for canned salmon from Taiwan and Thailand, amazing that sockeye show up from those places! They can't be farmed, can they.....

U.S. Code collection

§ 1826. Large-scale driftnet fishing

(a) Short title

This section incorporates and expands upon provisions of the Driftnet Impact Monitoring, Assessment, and Control Act of 1987 and may be cited as the "Driftnet Act Amendments of 1990".

(b) Findings

The Congress finds that—

(1) the continued widespread use of large-scale driftnets beyond the exclusive economic zone of any nation is a destructive fishing practice that poses a threat to living marine resources of the world's oceans, including but not limited to the North and South Pacific Ocean and the Bering Sea;

(2) the use of large-scale driftnets is expanding into new regions of the world's oceans, including the Atlantic Ocean and Caribbean Sea;

(3) there is a pressing need for detailed and reliable information on the number of seabirds, sea turtles, nontarget fish, and marine mammals that become entangled and die in actively fished large-scale driftnets and in large-scale driftnets that are lost, abandoned, or discarded;

(4) increased efforts, including reliable observer data and enforcement mechanisms, are needed to monitor, assess, control, and reduce the adverse impact of large-scale driftnet fishing on living marine resources;

(5) the nations of the world have agreed in the United Nations, through General Assembly Resolution Numbered 44-225, approved December 22, 1989, by the General Assembly, that a moratorium should be imposed by June 30, 1992, on the use of large-scale driftnets beyond the exclusive economic zone of any nation;

(6) the nations of the South Pacific have agreed to a moratorium on the use of large-scale driftnets in the South Pacific through the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, which was agreed to in Wellington, New Zealand, on November 29, 1989; and

(7) increasing population pressures and new knowledge of the importance of living marine resources to the health of the global ecosystem demand that greater responsibility be exercised by persons fishing or developing new fisheries beyond the exclusive economic zone of any nation.

(c) Policy

It is declared to be the policy of the Congress in this section that the United States

should—

(1) implement the moratorium called for by the United Nations General Assembly in Resolution Numbered 44–225;

(2) support the Tarawa Declaration and the Wellington Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific; and

(3) secure a permanent ban on the use of destructive fishing practices, and in particular large-scale driftnets, by persons or vessels fishing beyond the exclusive economic zone of any nation.

(d) International agreements

The Secretary, through the Secretary of State and the Secretary of the department in which the Coast Guard is operating, shall seek to secure international agreements to implement immediately the findings, policy, and provisions of this section, and in particular an international ban on large-scale driftnet fishing. The Secretary, through the Secretary of State, shall include, in any agreement which addresses the taking of living marine resources of the United States, provisions to ensure that—

(1) each large-scale driftnet fishing vessel of a foreign nation that is party to the agreement, including vessels that may operate independently to develop new fishing areas, which operate beyond the exclusive economic zone of any nation, is included in such agreement;

(2) each large-scale driftnet fishing vessel of a foreign nation that is party to the agreement, which operates beyond the exclusive economic zone of any nation, is equipped with satellite transmitters which provide real-time position information accessible to the United States;

(3) statistically reliable monitoring by the United States is carried out, through the use of on-board observers or through dedicated platforms provided by foreign nations that are parties to the agreement, of all target and nontarget fish species, marine mammals, sea turtles, and sea birds entangled or killed by large-scale driftnets used by fishing vessels of foreign nations that are parties to the agreement;

(4) officials of the United States have the right to board and inspect for violations of the agreement any large-scale driftnet fishing vessels operating under the flag of a foreign nation that is party to the agreement at any time while such vessel is operating in designated areas beyond the exclusive economic zone of any nation;

(5) all catch landed or transshipped at sea by large-scale driftnet fishing vessels of a foreign nation that is a party to the agreement, and which are operated beyond the exclusive economic zone of any nation, is reliably monitored and documented;

(6) time and area restrictions are imposed on the use of large-scale driftnets in order to prevent interception of anadromous species;

(7) all large-scale driftnets used are constructed, insofar as feasible, with biodegradable materials which break into segments that do not represent a threat to living marine resources;

(8) all large-scale driftnets are marked at appropriate intervals in a manner that conclusively identifies the vessel and flag nation responsible for each such driftnet;

(9) the taking of nontarget fish species, marine mammals, sea turtles, seabirds, and endangered species or other species protected by international agreements to which the United States is a party is minimized and does not pose a threat to existing fisheries or the long-term health of living marine resources; and

(10) definitive steps are agreed upon to ensure that parties to the agreement comply with the spirit of other international agreements and resolutions concerning the use of large-scale driftnets beyond the exclusive economic zone of any nation.

(e) Report

Not later than January 1, 1991, and every year thereafter until the purposes of this section are met, the Secretary, after consultation with the Secretary of State and the Secretary of the department in which the Coast Guard is operating, shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Merchant Marine and Fisheries of the House of Representatives a report—

(1) describing the steps taken to carry out the provisions of this section, particularly subsection (c) of this section;

(2) evaluating the progress of those efforts, the impacts on living marine resources, including available observer data, and specifying plans for further action;

(3) containing a list and description of any new fisheries developed by nations that conduct, or authorize their nationals to conduct, large-scale driftnet fishing beyond the exclusive economic zone of any nation; and

(4) containing a list of the nations that conduct, or authorize their nationals to conduct, large-scale driftnet fishing beyond the exclusive economic zone of any nation in a manner that diminishes the effectiveness of or is inconsistent with any international agreement governing large-scale driftnet fishing to which the United States is a party or otherwise subscribes.

(f) Certification

If at any time the Secretary, in consultation with the Secretary of State and the Secretary of the department in which the Coast Guard is operating, identifies any nation that warrants inclusion in the list described under subsection (e)(4) of this section, the Secretary shall certify that fact to the President. Such certification shall be deemed to be a certification for the purposes of section 1978 (a) of title 22.

(g) Effect on sovereign rights

This section shall not serve or be construed to expand or diminish the sovereign rights of the United States, as stated by Presidential Proclamation Numbered 5030, dated March 10, 1983, and reflected in this chapter or other existing law.

(h) "Living marine resources" defined

As used in this section, the term "living marine resources" includes fish, marine mammals, sea turtles, and seabirds and other waterfowl.

2005 REPORT OF THE SECRETARY OF COMMERCE

TO THE CONGRESS OF THE UNITED STATES

CONCERNING U.S. ACTIONS TAKEN ON

FOREIGN LARGE-SCALE HIGH SEAS DRIFTNET FISHING

PURSUANT TO SECTION 206(e) OF THE

MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT,

AS AMENDED BY PUBLIC LAW 104-297,

THE SUSTAINABLE FISHERIES ACT OF 1996

Table 1. Driftnet-capable vessels detected operating in the North Pacific Ocean in 2005.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
16 May	*ZHOU SHAN*	?	41°47'N, 166°56'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
20 May	*TUNG YANG 88*	?	35°26'N, 158°06'E	U.S. Albacore Tuna Fishermen	Sighting information passed to Belize, Taiwan, Indonesia, and the NPAFC
23 May	2* Unidentified	?	34°57'N, 159°01'E	U.S. Albacore Tuna Fishermen	Sighting information passed to the NPAFC
18 June	*LU RONG YU SHUI NO. 228*	PRC?	37°43'N, 160°33'E	Taiwan Coast Guard Patrol Vessel	Sighting information passed to the USCG
12 July	Unidentified	?	41°18'N, 160°07'E	USCG Aircraft	Sighting information passed to the NPAFC
29 July	Unidentified	?	44°44'N, 160°03'E	USCG Aircraft	Sighting information passed to the NPAFC
2 Sept.	*LU RONG YU 1327*	PRC?	44°40'N, 155°57'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 808*	PRC?	44°46'N, 156°12'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 809*	PRC?	44°46'N, 156°12'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 810*	PRC?	44°43'N, 156°10'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 807*	PRC?	44°40'N, 156°07'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
2 Sept.	*RONG YUAN YU 801*	PRC?	44°36'N, 156°06'E	Fisheries Agency of Japan Research Vessels	Sighting information passed to PRC and the NPAFC
1 Oct.	*VICTORY III*	?	41°52'N, 151°42'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
1 Oct.	*EVER RICH*	?	41°57'N, 151°-44'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
1 Oct.	*JUARA UNTUNG NO. 6*	Indonesia	42°-20'N 151°54'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
5 Oct.	*LU MU YU 6007*	PRC	41°41'N, 151°48'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
5 Oct.	*SHUNFA 8*	Georgia	41°45'N, 151°50'E	Fisheries Agency of Japan Patrol Vessel	Sighting information passed to the NPAFC
14 Oct.	9** Unidentified	?	40°40'N 170°E	U.S. Albacore Tuna Fishermen	Sighting information passed to the USCG

Note: Only those vessels visually confirmed to be driftnet-capable were counted in this report. Radar returns alone were not considered adequate confirmation that a vessel was driftnet-capable. In addition, several of the vessels above were unidentified, making multiple sightings of the same vessel or vessels possible.
* 7 vessels were reported on 23 May 2005, but only 2 were visually confirmed. The remaining 5 were radar returns.
** Of the 9 vessels reported on 14 October 2005, 2 were unconfirmed visual sightings at night and the remaining 7 were radar returns. None of these vessels were counted in the 18 sightings in the North Pacific Ocean in 2005.

My REPORT "DRIFTNET ENCOUNTER"

A summary of high seas driftnet vessel sightings and apprehensions by North Pacific nations from 1998 to 2007 is provided in Table 1.

Table 1. North Pacific high seas driftnet vessel sightings and interceptions from 1998-2007.

Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Canada	0	3	3	0	0	1	2	1	26	9
Japan	0	2	0	0	3	0	1	17	67	21
Russia	0	1	0	0	0	0	0	0	0	2
China	0	0	0	0	0	0	11	0	0	0
Taiwan	2	3	0	0	0	0	0	1	0	7
United States	8	2	1	0	2	24	8	5	5	8
Total Sightings	**10**	**11**	**4**	**0**	**5**	**25**	**22**	**24**	**98**	**47**
Apprehended*	**4**	**3**	**1**	**0**	**0**	**6**	**1**	**0**	**0**	**7**

* Out of the total number of vessels sighted.

U.S. Driftnet Enforcement Efforts

Aircraft patrols. The USCG patrolled high threat areas in the North Pacific in support of the U.S. High Seas Driftnet Fisheries Enforcement Act, NPAFC initiatives, and to monitor compliance with the UN moratorium on large-scale high seas driftnet fisheries operations. *Operation North*

Table 1. Summary of driftnet-capable vessels detected operating in the North Pacific Ocean in 2004.

Date	Vessel Name*	Flag	Position	Source of Report	Action
6 May	*VICTORIA JAYA*	Unknown	35-10N, 169-14E	Canadian CP-140 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
6 May	Unidentified	Unknown	36-57N, 168-34E	Canadian CP-140 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
16 May	*CHUN JIN NO. 1*	Georgia	43-48N, 165-21E	Japanese Patrol Vessel	FAJ boarding, NPAFC letter, and U.S. demarches to Georgia and Taiwan
19 May	*VICTORIA JAYA 2*	Unknown	35-32N, 162-43E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
21 May	*VICTORIA 1 JAYA*	Unknown	36-12N, 161-08E	USCG C-130 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
21 May	*VICTORIA JAYA IV*	Unknown	36-15N, 161-19E	USCG C-130 Aircraft	Sighting information passed to NPAFC, PRC, and Indonesia
21 May	*CHUN JIN NO. 1*	Georgia	36-14N, 161-18E	USCG C-130 Aircraft	Sighting information passed to NPAFC, PRC, and Taiwan
27 June	*TUNG YANG NO 188*	Unknown	38-55N, 160-48E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
28 June	*TONG YANG NO. 168*	Unknown	39-01N 161-35E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
28 June	*VICTORIA JAYA*	Unknown	39-00N, 161-27E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
28 June	Unidentified	Unknown	39-02N, 161-18E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
29 June	*FUND YIH NO 16*	Unknown	38-47N, 161-35E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
30 June	*HENG YE NO 17*	Unknown	38-53N, 161-44E	U.S. Tuna Fishing Vessel	Sighting information passed to NPAFC, PRC, and Indonesia
12 Sept.	11 High Seas Driftnet Fishing Vessels	PRC	40N-41N 152E-153E	PRC Fisheries Law Enforcement Command	Information passed to NPAFC

* Note: several of the vessels in Table 1 have very similar names and were of similar profiles. As a result, some are believed to be duplicate reports, and the best estimate for number of high seas driftnet-capable vessels sighted in the North Pacific in 2004 is 22.

Patrol Results: Canadian patrols sighted nine high seas driftnet-rigged vessels and one supply vessel. Details on the sightings are provided in Table 3. Two of the vessels sighted on 14 September had 5 nautical miles of driftnet in the water.

Table 3. Driftnet-capable vessels sighted by Canada operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
7 June	*FONG SENG 828*	Unidentified	47°08'N, 158°40'E, 3 nm inside the Russian EEZ	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
7 June	*FONG SENG 818*	Unidentified	47°05'N, 158°00'E, 1 nm inside the Russian EEZ	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
7 June	*HENGYE NO. 17*	Unidentified	Not Available	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
9 Sept.	*TIRTARYA 02*	Indonesia?*	44°04'N, 158°17'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 6215**	Unidentified	44°16'N, 158.02'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 6216**	Unidentified	44°16'N, 158°02'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 0577**	Unidentified	43°19'N, 157°44'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	*UNIDENTIFIED 6726**	Unidentified	43°19'N, 154°44'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC
14 Sept.	Unidentified (no markings)	Unidentified	43°18'N, 157°43'E	Canadian DND CP-140 Aircraft	Sighting information provided to the NPAFC

* "Banten" was painted on the stern. (Banten is an Indonesian province located in west Java.)
** The "*UNIDENTIFIED*" vessels' names consisted of 3 Chinese characters followed by the numbers indicated. We are unable to represent the characters here.

Canadian Driftnet Enforcement Efforts for 2008: The Canadian Government will commit 180 hours of air surveillance time to high seas driftnet fisheries enforcement in 2008. However, no firm dates have been set for aircraft deployments at this time.

Japan's Driftnet Enforcement Efforts

Japan's 2007 driftnet fishery enforcement efforts consisted of the deployment in the North Pacific Ocean of 4 Fisheries Agency of Japan (FAJ) patrol vessels for a total of 41 ship days at sea from July-October. Japan Coast Guard and FAJ aircraft flew a total of 85 hours (24 and 61 hours, respectively) from July-October. A Japan Coast Guard Gulf V aircraft was also deployed in a joint operation with the USCG on 5 September.

A Japanese patrol vessel sighted the driftnet vessel *BAHARITIMUL 134* ON 13 July 2007 at 40°09.5'N, 155°55'E. When hailed by the Japanese patrol vessel, the *BAHARITIMUL 134* responded in Chinese. However, the vessel had "Banten" (an Indonesian province located in west Java) painted on its stern and was flying the Indonesian flag upside down.

Japan's air patrols reported a total of six unidentified vessels rigged with high seas driftnets to the NPAFC and NPCGF.

On 21 July, Japanese squid jigging vessels sighted an unidentified driftnet vessel operating at 39°11'N, 162°15'E. A second driftnet vessel, the *MERINA*, was sighted on 24 July at 40°21'N, 157°01'E. Both vessels were reported actively fishing.

A Japanese Fisheries Research Agency vessel, the *58 TOMI MARU*, sighted 12 driftnet vessels on 20-25 August 2007 in the vicinity of 40°48'N-41°13'N, 156°10'E-158°22'E. These included vessels named *WANG* and *NICKY*.

Japan's 2007 driftnet vessel sightings are summarized in Table 4.

Table 4. Driftnet-capable vessels sighted by Japan operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
13 July	*BAHARITIMUL 134*	Indonesia?	40°09.5'N, 150°41'E	Japan Fisheries Agency Patrol Vessel	Sighting information provided to the NPAFC
28 June, 9 July	6 Unidentified	Unidentified	Not Available	Japan Coast Guard Aircraft	Sighting information provided to the NPAFC and NPCGF
21 July	Unidentified	Unidentified	39°11'N, 162°15'E	Japanese Squid Jigging Vessels	Sighting information provided to the NPAFC
24 July	*MERINA*	Unidentified	40°21'N, 157°01'E	Japanese Squid Jigging Vessels	Sighting information provided to the NPAFC
20-25 Aug.	10 Unidentified	Unidentified	40°48'N-41°13'N, 156°10'E-158°22'E	Japan Fisheries Research Agency Vessel	Sighting information provided to the NPAFC
20-25 Aug.	*WANG*	Unidentified	40°48'N-41°13'N, 156°10'E-158°22'E	Japan Fisheries Research Agency Vessel	Sighting information provided to the NPAFC
20-25 Aug.	*NICKY**	Unidentified	40°48'N-41°13'N, 156°10'E-158°22'E	Japan Fisheries Research Agency Vessel	Sighting information provided to the NPAFC

* *NICKY* was also sighted by a Canadian air patrol in September 2006.

Japanese Driftnet Enforcement Efforts for 2008: Japan intends to maintain the same level of enforcement effort in 2008 as in 2007.

Korea's Driftnet Enforcement Efforts

The Korean Government did not participate in any high seas fisheries driftnet enforcement activities in 2007 and does not plan to conduct any pursuant to the NPAFC enforcement effort in 2008. However, as a member of the WCPFC, Korea plans to participate in the WCPFC boarding and inspection program in the WCPFC Convention Area, which partially overlaps the NPAFC

The *HSUN HU NO.3* sighted two more driftnet vessels on 26 August 2007. These vessels also abandoned their gear and fled.

Taiwan's sightings are summarized in Table 5. None of the vessels were identified to flag state, however the Chinese words "shi-dao" were sighted on the stern of the *WANG* or *WAN9*. The Taiwan patrol vessel obtained photographs of all of the vessels.

Table 5. Driftnet-capable vessels sighted by Taiwan operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
29 July	*MERINA**	Unidentified	40°47'N, 156°35.6'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	*WANG* or *WAN9***	Unidentified	42°43.04'N, 155°07'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	*AOHERD*	Unidentified	42°43.12'N, 155°55.98'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	Unidentified	Unidentified	42°38'N, 155°47'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
25 Aug.	Unidentified	Unidentified	42°38'N, 155°47'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
26 Aug	Unidentified	Unidentified	42°48'N, 155°41'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
26 Aug.	*HENGYE NO. 17****	Unidentified	42°51'N, 155°31'E	Taiwan Coast Guard	Sighting information passed to the NPAFC

* The *MERINA* was sighted by Japanese squid jigging vessels on 24 July 2007in roughly the same area.
** A driftnet vessel named *WANG* was sighted by a Japanese Fisheries Research Agency vessel in the 20-25 August 2007 timeframe. See Table 2.
*** The *HENGYE NO. 17* was sighted by Canada on 7 June 2007 (see Table 2). A U.S. tuna vessel first sighted the vessel in June 2004.

Taiwan's Driftnet Enforcement Efforts for 2008: Taiwan will continue to dispatch patrol vessels to the North Pacific to prevent Taiwan-flagged vessels and nationals from engaging in large-scale high seas driftnet fishing. It will also continue to cooperate and exchange enforcement information with the NPAFC.

Chinese Driftnet Enforcement Efforts

Although driftnet fishing for salmon on the high seas is illegal under PRC law, PRC fishing vessels and nationals have continued to engage in large-scale high seas driftnet fishing in the North Pacific Ocean in recent years. The encouraging news is that the cooperative efforts of U.S. and PRC fisheries law enforcement authorities are achieving some success toward eliminating the problem. With the cooperation of the PRC Government, the USCG was able to intercept six PRC-flagged high seas driftnet vessels in the northwestern Pacific Ocean in 2007 (Table 2). These vessels were turned over to the PRC FLEC for investigation and prosecution under PRC law. Thus far for 2007, the PRC has taken enforcement action against 13 illegal high seas driftnet vessels and one transfer vessel operating in the North Pacific. In seven cases, the

three vessels were intercepted; the fourth (*6106*) escaped. While USCG boarding teams did not observe any catch in the holds, the vessels were configured for large-scale high seas driftnet fishing, and the PRC FLEC shiprider from the *BOUTWELL* boarded and seized all three vessels for violations of PRC law. The *BOUTWELL* transferred custody of the three suspected high seas driftnet vessels to the USCG Cutter *MIDGETT* before a rendezvous and final custody transfer to a PRC FLEC patrol vessel. Similar to the previous three PRC-flagged fishing vessels seizures, these vessels are believed to have been targeting squid, based on associated sea surface temperatures.

A summary of the U.S. seizures and sightings of high seas driftnet vessels in 2007 is provided in Table 2.

Table 2. Driftnet-capable vessels intercepted or sighted by the United States operating in the North Pacific Ocean in 2007.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
6 Sept.	*LU RONG YU 6007*	PRC	42°50'N, 157°45'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
14 Sept.	*FONG SENG NO. 818*	Indonesia	42°58.15'N, 154°11.82'E	U.S. Coast Guard Cutter	Sighting information passed to the Indonesian Government and the NPAFC
24 Sept.	*LU RONG YU 1961*	PRC	43°55.83'N, 155°46.85'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
24 Sept.	*ZHE DAI YUAN YU 829*	PRC	43°55.83'N, 155°46.85'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 2659*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 2660*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 6105*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Seized and transferred custody to a PRC patrol vessel
5 Oct.	*LU RONG YU 6106*	PRC	42°30'N, 152°28'E	U.S. Coast Guard Cutter	Sighting information provided to the PRC and the NPAFC

In addition to the enforcement effort associated with seizure of the six PRC-flagged large-scale high seas driftnet vessels, the USCG Cutter *CHASE* rendezvoused with the Russian Federal Security Service patrol vessel *VOROVSKY* for a separate IUU fisheries law enforcement joint patrol, officer exchange, and training engagement in April 2007. The vessels conducted a joint boarding exercise on the Alaska State Trooper vessel *WOLSTAD* in preparations for future North Pacific IUU fishing and Central Bering Sea high seas law enforcement operations.

13 Sept.	*UNIDENTIFIED 5267*	?	43°53'N, 155°51'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 17*	?	43°53'N, 155°50'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
16 Oct.	*DON YUAN YU NO 62602*	China?	41°21.5'N, 150°48.1'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
16 Oct.	*DON YUAN YU NO 66021*	China?	41°21.5'N, 150°48.1'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
16 Oct.	*UNKNOWN*	China?	41°26'N, 150°55'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
16 Oct.	*UNKNOWN*	China?	41°26'N, 150°55'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
17 Oct.	2 Unidentified Driftnet Vessels	China?	42°04.5' – 42°04.7'N, 146°30.4'-146°31.2'E	Japan (Fisheries Agency of Japan Patrol Aircraft)	Sighting information provided to the Chinese Government and the NPAFC
18 Oct.	8 Unidentified Driftnet Vessels	?	41°02.8' – 41°15.6'N, 150°20.6'-151°12.6'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information passed to the NPAFC
19 Oct.	2 Unidentified Driftnet Vessels	?	42°06.7' – 42°14.6'N, 151°53.3'-151°56.3'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information passed to the NPAFC
19 Oct.	1 Unidentified Driftnet Vessel	China?	41°06.1'N, 150°39.8'E	Japan (Fisheries Agency of Japan Patrol Aircraft)	Sighting information provided to the Chinese Government and the NPAFC
24 Oct.	3 Unidentified Driftnet Vessels	China?	41°38.4' – 41°39.1'N, 151°10.7'-151°14.9'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information provided to the Chinese Government and the NPAFC
1 Nov.	6 Unidentified Driftnet Vessels	China?	41°27.5' – 41°49.3'N, 151°31'-151°47.9'E	Japan (Fisheries Agency of Japan Patrol Aircraft)	Sighting information provided to the Chinese Government and the NPAFC
5 Nov.	6 Unidentified Driftnet Vessels	China?	41°21.8' – 41°50.2'N, 150°45.2'-151°28.2'E	Japan (Fisheries Agency of Japan Patrol Vessel)	Sighting information provided to the Chinese Government and the NPAFC
Total Number of Sightings in the North Pacific in 2006 = 98					

* The "*UNIDENTIFIED*" vessels' names consisted of 2-3 characters followed by the numbers indicated. We are unable to represent the characters here.

Note: Only those vessels visually confirmed to be driftnet-capable were counted in this report. Radar returns alone are not considered adequate confirmation that a vessel is driftnet-capable. In addition, many of the vessels above were unidentified, making multiple sightings of the same vessel or vessels possible.

(2) U.S. Driftnet Enforcement Efforts in the North Pacific

To monitor compliance with the UN driftnet moratorium, the USCG patrolled high threat areas in the North Pacific. Operation North Pacific Watch, the USCG's 2006 high seas driftnet enforcement plan, began in April 2006. From April-October, USCG aircraft from Air Station

9 Sept.	*UNIDENTIFIED ??*	?	44°40'N, 156°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
12 Sept.	*UNIDENTIFIED 62602*	China?	42°20.1'N, 152°39.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Sept.	*UNIDENTIFIED 62601*	China?	42°23.7'N, 152°38.1'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Sept.	*UNIDENTIFIED 66021*	China?	42°27.7'N, 152°33'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Sept.	*SAMUDERAPACIFIC NO. 8*	?	42°33.8'N, 152°38.9'E	Japan	Sighting information provided to the NPAFC
12 Sept.	*TIMUR JAYA NO. 168*	Indonesia?	42°35.4'N, 153°04.3'E	Japan	Sighting information provided to the NPAFC
12 Sept.	*MICKY*	?	42°44'N, 164.05'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
12 Sept.	*UNIDENTIFIED*	?	42°49'N, 164.10'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
12 Sept.	*UNIDENTIFIED*	?	42°42'N, 163°21'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 61*	China?	42°31.5'N, 153°19.5'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 807*	China?	42°35.7'N, 153°35'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 66021*	China?	42°32.3'N, 152°25.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 62602*	China?	42°33.3'N, 152°22.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 801*	China?	42°32.8'N, 152°26.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 52667*	China?	42°28.8'N, 152°27.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*SANANDRES 727*	?	42°28.1'N, 152°37.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 415*	China?	42°46.9'N, 153°24.3'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
13 Sept.	*UNIDENTIFIED 6814*	?	44°44'N, 157°41'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 6815*	?	44°47'N, 157°43'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED*	?	44°48'N, 157°46'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED 5268*	?	43°53'N, 156°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED*	?	43°54'N, 155°59'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
13 Sept.	*UNIDENTIFIED*	?	43°53'N, 155°55'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC

7 Aug.	*UNIDENTIFIED 801*	China?	39°44.7'N, 149°55.4'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 6*	China?	40°32.5'N, 151°42.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 77*	China?	40°36'N, 151°44.1'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 99*	China?	40°37.1'N, 151°43.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 98*	China?	40°28.1'N, 151°28.3'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED 1321*	China?	40°55'N, 150°58.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED*	China?	40°54'N, 151°00.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
12 Aug.	*UNIDENTIFIED*	China?	40°59.5'N, 150°51.9'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
23 Aug.	*MERIYANA*	?	42°11'N, 158°27'E	Taiwan Coast Guard	Sighting information passed to the NPAFC
30 Aug.	*UNIDENTIFIED 0006*	China?	42°15.2'N, 152°01.1'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
31 Aug.	*UNIDENTIFIED 0001*	China?	42°20.9'N, 152°52.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
8 Sept.	*UNIDENTIFIED 3068*	?	44°13'N, 156°44'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED*	?	44°11'N, 156°44'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 91*	?	44°25'N, 156°23'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 77*	?	44°27'N, 155°55'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 5*	?	43°36'N, 154°49'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 132*	?	44°30'N, 156°33'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
8 Sept.	*UNIDENTIFIED 176*	?	44°33'N, 156°14'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED*	?	44°13'N, 155°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED 518*	?	44°17'N, 154°59'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED 18*	?	44°20'N, 155°E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED*	?	44°12'N, 155°03'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
9 Sept.	*UNIDENTIFIED*	?	44°38'N, 156°02'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC

Table 1. Driftnet-capable vessels sighted operating in the North Pacific Ocean in 2006.

DATE	VESSEL NAME	FLAG	POSITION	SOURCE OF REPORT	ACTION
3 June	*IRIDIA*	Russia	43°44'N, 154°23'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
3 June	*UNIDENTIFIED*	?	43°44'N, 154°23'E	Canadian CP-140 Aircraft	Sighting information passed to the NPAFC
18 July	*UNIDENTIFIED 2388*	China?	40°30.6'N, 151°43.5'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
18 July	*UNIDENTIFIED 2900*	China?	40°08.6'N, 151°49.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2900*	China?	39°21.8'N, 152°59.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2899*	China?	39°20.5'N, 153°00.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 818*	China?	39°18.4'N, 152°57.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 820*	China?	39°17.2'N, 152°55.6'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 66021*	China?	39°15.4'N, 152°54.3'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2889*	China?	39°16.3'N, 152°48'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
19 July	*UNIDENTIFIED 2890*	China?	39°16.0'N, 152°46.9'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
3 Aug.	*UNIDENTIFIED*	China?	39°30.9'N, 153°24.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED*	China?	39°50.7'N, 154°06.5'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED 111*	China?	39°53'N, 154°07.2'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED 112*	China?	39°52.1'N, 154°13.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
4 Aug.	*UNIDENTIFIED 518*	China?	39°51.8'N, 154°13.8'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
6 Aug.	*UNIDENTIFIED 52820*	China?	40°20.9'N, 152°28.9'E	Japan	Sighting information provided to the Chinese Government and the NPAFC
6 Aug.	*UNIDENTIFIED 52819*	China?	39°57.6'N, 151°21.7'E	Japan	Sighting information provided to the Chinese Government and the NPAFC

In addition, the PRC posted a list of potential driftnet vessels sighted in 2006 in the China Fisheries News and offered a $2,500 reward for information on their whereabouts and their illegal activities. Over 10,000 flyers were posted in fishing ports throughout China. DVDs containing the list of sightings and photos of the suspected drift net vessels were also distributed to port authorities. Driftnet vessels can easily be identified by the modifications that are necessary to allow them to handle the netting. Such modifications on vessels licensed to operate on the high seas are sufficient evidence for vessel seizures.

From the list of 98 vessels sighted in 2006, PRC officials said that sufficient evidence was available to investigate only 53. Of this number, 7 were unidentifiable, 3 were determined to be registered in other countries, and the remaining 43 were likely PRC vessels. Unfortunately, the PRC was unable to locate 25 of the 43 due to the vessels disguising their identity—the vessels and marking schemes were consistent with PRC-registered fishing vessels, but the names and registration numbers were not in FLEC databases, or the vessel simply could not be found. Of the remaining 18 vessels, 7 were found to be illegally engaged in driftnet fishing on the high seas As a result, their owners were fined and catches seized. Four of the vessels were also confiscated. PRC officials said there was insufficient evidence in the remaining 11 cases to take any actions, largely due to receiving the sighting reports so late.

Thus far for 2007, the PRC has taken enforcement action against 13 illegal high seas driftnet vessels and one transfer vessel operating in the North Pacific. In seven cases, the vessel and catch was seized and the owners fined. Four cases were still under investigation at the time of this report.

The United States is encouraged with the substantial increase in enforcement actions taken by the PRC Government in 2007. The PRC has given its assurances that it will investigate every PRC vessel named on the vessel sighting lists and that vessels that are found to have engaged in illegal high seas driftnet fishing will be seized and auctioned. This is a powerful deterrent. The United States will continue to assist, where possible, the PRC to improve its enforcement presence on the squid fishing grounds in the North Pacific Ocean with the ultimate goal of the PRC patrolling its own high seas fishing fleet. In addition, the United States will explore with other countries the possibility of targeting future enforcement efforts at areas and time periods that showed increased driftnet activity in 2006 and 2007, and will investigate the role that other multilateral organizations, such as the WCPFC, might play in enforcement efforts in the future.

Italy and France: Regarding Italy, the Secretary of Commerce identified it on 19 March 1999 pursuant to the High Seas Driftnet Fisheries Enforcement Act as a nation that conducts, or authorizes its nationals to conduct, large-scale pelagic driftnet fishing on the high seas beyond the EEZ of any nation. On 15 July 1999, the United States and Italy formally agreed on measures to effect the immediate termination of Italian large-scale high seas driftnet fishing. For this reason, the United States did not impose trade sanctions on Italian fish, fish products and sport fishing equipment pursuant to the Act. Although the 1999 agreement has expired, the United States has continued to apply the provision of the High Seas Driftnet Fisheries Enforcement Act that denies entry of Italian large-scale driftnet vessels to U.S. ports and navigable waters. Since 29 May 1996 it has also required Italy to provide documentary evidence

CRITICAL HABITAT DESIGNATION FOR LEATHERBACK TURTLES

On January 5, 2010, National Marine Fisheries Service (NMFS) published a proposed rule to designate critical habitat in the U.S. west coast Exclusive Economic Zone (EEZ) for the endangered leatherback sea turtle (Attachment 1). The designation proposal responds to a petition filed by the Center for Biological Diversity, Oceana, and Turtle Island Restoration Network on October 2, 2007. At Council request, NMFS subsequently extended the public comment period until April 23, 2010 (75 FR 7434). The Notice reproduced in Attachment 1 describes the proposed designation as:

> two adjacent marine areas totaling approximately 46,100 square miles (119,400 square km) stretching along the California coast from Point Arena to Point Vincente; and one 24,500 square mile (63,455 square km) marine area stretching from Cape Flattery, Washington to the Umpqua River (Winchester Bay), Oregon east of a line approximating the 2,000 meter depth contour. The areas proposed for designation comprise approximately 70,600 square miles (182,854 square km) of marine habitat. Other Pacific waters within the U.S. EEZ were evaluated based on the geographical area occupied by the species, but it was decided to exclude those areas from the critical habitat designation because the potential costs outweighed the benefits of critical habitat designation and exclusion would not result in the extinction of the species.

Attachment 2 contains maps showing the boundaries of the three areas proposed for designation and the five areas excluded from the designation.

Critical habitat is defined in the Endangered Species Act (ESA) as areas whose physical and biological features are essential to the conservation of the species and which may require special management considerations or protection. Such areas may be within the area occupied by the species at the time of ESA listing or outside that area, if warranted. Section 7 of the ESA requires Federal agencies to ensure they do not fund, authorize, or carry out any actions that will destroy or adversely modify critical habitat.

The petitioners had asked that the current time/area closure for the west coast drift gillnet fishery (50 CFR 660.713(c)(1) be designated. Because of the extensive migrations of leatherback sea turtles, NMFS decided to consider designation beyond the area proposed by the petitioners, to include almost all of the west coast EEZ subdivided into eight areas, each of which was evaluated separately based on the requirement of ESA sec. 4(b)(2) requiring the agency to consider economic impacts, impacts to national security, and other relevant impacts of designating any particular area as critical habitat.[1]

Regulations require agencies to focus on "Primary Constituent Elements" (PCEs) within the areas considered for designation, "which may include, but are not limited to, the following: spawning sites, feeding sites, water quality or quantity, geological formation, and tide." Based

[1] The reports and analyses NMFS used in choosing the three areas to propose may be found at http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents.*

on their analysis, NMFS identified the following PCEs: 1) Occurrence of prey species and 2) migratory pathways. A third PCE was considered but ultimately rejected: water quality. NMFS is explicitly seeking public comment on the exclusion of water quality as a PCE.

In evaluating the migratory pathways PCE, NMFS determined that only long-term structures that alter the habitat would be considered as having potential effects on passage. For this reason vessel passage and fishing gear were not considered potential threats to this PCE.

With respect to the criterion for critical habitat designation of "physical and biological features that may require special management considerations or protection," NMFS sought to identify activities that may threaten the identified PCEs, since these impacts would constitute an impact to physical and biological features. NMFS identified eight classes of activity that may threaten the identified PCEs: Pollution from point sources (e.g., National Pollution Discharge Elimination System (NPDES)); runoff from agricultural pesticide use; oil spills; power plants; aquaculture; desalination plants; tidal energy or wave energy projects; and liquid natural gas (LNG) projects. NMFS also considered offshore wind energy projects, commercial fishing, and ocean acidification as activities that may threaten the PCEs but rejected these three types of activity. However, NMFS is seeking public comment on these decisions.

In considering commercial fishing as a threat to the PCEs, NMFS also considered the potential for fisheries targeting jellyfish (an important prey item) but concluded no such fishery will develop nor is bycatch of jellyfish in current fisheries significant. As noted above, only long-term, habitat altering structures were considered as a potential threat to the migratory PCE, so fishing gear was not considered an impediment to passage in this context. Additionally, NMFS found that "the direct take of the species in fishing gear is more appropriately considered under the jeopardy standard in ESA section 7 consultations."

The Notice identifies the following issues on which NMFS is explicitly seeking public comment:

- The exclusion of water quality as a PCE (see page 324 in Attachment 1).
- The exclusion of offshore wind energy projects, commercial fishing, and ocean acidification as activities threatening the identified PCEs (see page 327 in Attachment 1).
- The decision rules used to determine which of the eight candidate areas to propose as critical habitat (see page 329 in Attachment 1).
- The areas excluded from the proposed critical habitat designation (see page 330 in Attachment 1 and Attachment 2).

The Council may also wish to comment on the areas included in the proposed designation and the specific boundaries for these areas and the excluded areas.

Council Task:

Provide comments and recommendations on the proposed leatherback sea turtle critical habitat designation.

Reference Materials:

1. Agenda Item G.4.a Attachment 1: Proposed Rule to Revise the Critical Habitat Designation for the Endangered Leatherback Sea Turtle (75 FR 319).
2. Agenda Item G.4.a, Attachment 2: Maps of Proposed and Excluded Leatherback Sea Turtle Critical Habitat Designations.

Agenda Order:

a. Agenda Item Overview **Kit Dahl**
b. NMFS Report
c. Reports and Comments of Advisory Bodies and Management Entities
d. Public Comment
e. **Council Action:** Provide Comments and Recommendations on the Proposed Designation

PFMC
03/23/10

false killer whale because its reach is limited, changes made to the longline fisheries managed under the MSFCMA have not proven adequate to prevent the hooking or entanglement of insular false killer whales, and it has not been successful in preventing the depletion of bigeye tuna, yellowfin tuna, and mahi mahi, primary prey for the insular stock of false killer whales.

In discussing the risks to small populations, NRDC notes that small populations are particularly vulnerable to extinction due to demographic and environmental stochasticity, the risks of local catastrophes, slower rates of adaptation, deleterious effects of inbreeding, and ''mutational meltdown'' (genetic load that arises from expression of harmful alleles). NRDC emphasizes the Allee effect, also known as depensation, as causing a decline in per capita reproduction at low population densities.

Finally, NRDC discusses the potential cumulative and synergistic impacts on the population, noting that some of these threats may have significant sublethal effects (e.g., contamination with persistent organochlorine pollutants), they may also contribute cumulatively towards reduced survival and reproductive rates (e.g., decline in reproductive rate from toxic contamination combined with the Allee effect) in false killer whales.

Petition Finding

We have reviewed the petition, the literature cited in the petition, and other literature and information readily available in our files. Based on our review, we find that the petition satisfies the requirements of 50 CFR 424.14(b)(2) because it: (i) clearly indicates the administrative measure recommended and gives the scientific and any common name of the species involved; (ii) contains a detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved and any threats faced by the species; (iii) provides information regarding the status of the species over all or a significant portion of its range; and (iv) is accompanied by the appropriate supporting documentation in the form of citations to journals that are readily accessible. This information would lead a reasonable person to believe that the measure proposed in the petition may be warranted. Therefore, we have determined that the petition, the literature cited in the petition, and other literature and information readily available in our files indicate that the petitioned action may be warranted.

Request for Information

As a result of the finding, we will commence a status review of Hawaiian false killer whales to determine: (1) if the insular population of Hawaiian false killer whales is a DPS under the ESA; and, if so (2) the risk of extinction to this DPS. Based on the results of the status review, we will then determine whether listing the insular population of Hawaiian false killer whales under the ESA is warranted. We intend that any final action resulting from this status review be as accurate and as effective as possible. Therefore, we are opening a 30–day public comment period to solicit suggestions and information from the public, government agencies, the scientific community, industry, and any other interested parties on the status of the insular population of Hawaiian false killer whales. Specifically, we solicit information on the following areas:

(1) Taxonomy, abundance, reproductive success, age structure, distribution, habitat selection, food habits, population density and trends, and habitat trends;

(2) Effects of other potential threat factors, including climate change, ocean acidification, acoustic impacts, and persistent organic pollutants;

(3) Interactions with fisheries, including longline, unregulated nearshore, and shortline fisheries;

(4) Unconfirmed interactions from local fishermen; and

(5) Effects of management on the insular population of Hawaiian false killer whales.

We request that all data and information be accompanied by supporting documentation such as maps, bibliographic references, or reprints of pertinent publications. Please send any comments to the **ADDRESSES** listed above. We will base our findings on a review of best available scientific and commercial information available, including all information received during the public comment period.

Authority: The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: December 29, 2009.

John Oliver,

Deputy Assistant Administrator for Operations, National Marine Fisheries Service.

[FR Doc. E9–31297 Filed 1–4–10; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 0808061067–91396–01]

RIN 0648–AX06

Endangered and Threatened Species: Proposed Rule To Revise the Critical Habitat Designation for the Endangered Leatherback Sea Turtle

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: We, the National Marine Fisheries Service (NMFS), propose revising the current critical habitat for the leatherback sea turtle (*Dermochelys coriacea*) by designating additional areas within the Pacific Ocean. Specific areas proposed for designation include two adjacent marine areas totaling approximately 46,100 square miles (119,400 square km) stretching along the California coast from Point Arena to Point Vincente; and one 24,500 square mile (63,455 square km) marine area stretching from Cape Flattery, Washington to the Umpqua River (Winchester Bay), Oregon east of a line approximating the 2,000 meter depth contour. The areas proposed for designation comprise approximately 70,600 square miles (182,854 square km) of marine habitat. Other Pacific waters within the U.S. Exclusive Economic Zone (EEZ) were evaluated based on the geographical area occupied by the species, but it was decided to exclude those areas from the critical habitat designation because the potential costs outweighed the benefits of critical habitat designation and exclusion would not result in the extinction of the species. We are soliciting comments from the public on all aspects of the proposal, including information on the economic, national security, and other relevant impacts. We will consider additional information received prior to making a final designation.

DATES: Comments and information regarding this proposed rule must be received by March 8, 2010.

ADDRESSES: You may submit comments, identified by RIN 0648–AX06, addressed to: David Cottingham, Chief, Marine Mammal and Sea Turtle Conservation Division, by any of the following methods:

• *Electronic Submissions:* Submit all electronic comments via the Federal eRulemaking Portal *http://www.regulations.gov.*

• *Facsimile (fax):* 301–713–4060, Attn: David Cottingham.

• *Mail:* Chief, Marine Mammal and Sea Turtle Conservation Division, NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910.

Instructions: No comments will be posted for public viewing until after the comment period has closed. All comments received are a part of the public record and will generally be posted to *http://www.regulations.gov* without change. NMFS may elect not to post comments that contain obscene or threatening content. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments (enter N/A in the required fields, if you wish to remain anonymous). You may submit attachments to electronic comments in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only. The proposed rule, list of references and supporting documents, including the biological report, economic report, IRFA analysis, and 4(b)(2) report, are also available electronically at *http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents.*

FOR FURTHER INFORMATION CONTACT: Sara McNulty, NMFS, Office of Protected Resources, 301–713–2322; Elizabeth Petras, NMFS Southwest Region, 562–980–3238; Steve Stone, NMFS Northwest Region, 503–231–2317.

SUPPLEMENTARY INFORMATION:

Background

The leatherback sea turtle was listed as endangered throughout its range on June 2, 1970 (35 FR 8491). Pursuant to a joint agreement, the U.S. Fish and Wildlife Service (USFWS) has jurisdiction over sea turtles on the land and NMFS has jurisdiction over sea turtles in the marine environment. The USFWS initially designated critical habitat for leatherbacks on September 26, 1978 (43 FR 43688). The critical habitat area consists of a strip of land 0.2 miles (0.32 kilometers) wide (from mean high tide inland) at Sandy Point Beach on the western end of the island of St. Croix in the U.S. Virgin Islands. On March 23, 1979, NMFS designated the marine waters adjacent to Sandy Point Beach as critical habitat from the hundred fathom (182.9 meters) curve shoreward to the level of mean high tide (44 FR 17710).

On October 2, 2007, we received a petition from the Center for Biological Diversity, Oceana, and Turtle Island Restoration Network (''Petitioners'') to revise the leatherback critical habitat designation. The Petitioners sought to revise the designation to include the area currently managed under the authority of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act to reduce leatherback interactions in the California/Oregon drift gillnet fishery targeting swordfish and thresher sharks. This area encompasses roughly 200,000 square miles (321,870 square km) of the U.S. EEZ from 45° N. latitude about 100 miles (160 km) south of the Washington/Oregon border southward to Point Sur, California and along a diagonal line due west of Point Conception, California, and west to 129° W. longitude. Under the current regulations implementing the Highly Migratory Species Fishery Management Plan, the use of large mesh drift gillnet gear is prohibited in this area from August 15th through November 15th (50 CFR 660.713).

On December 28, 2007, we announced our 90-day finding that the petition provided substantial scientific information indicating that the petitioned action may be warranted (72 FR 73745). We did not meet the statutory deadline of October 2, 2008 for deciding whether to proceed with a proposed designation and the Petitioners filed a lawsuit seeking to compel that decision. Per the settlement agreement, we agreed to submit this finding to the **Federal Register** by December 4, 2009. We were then granted an extension to submit this finding by December 31, 2009.

When initially evaluating the petition to designate critical habitat off the U.S. West Coast, we reviewed a variety of data sources to identify specific areas within and adjacent to the petitioned area that might warrant consideration as critical habitat. Due to the extensive movements of leatherback sea turtles throughout the U.S. West Coast within the U.S. EEZ, we determined that areas adjacent to the petitioned area should also be considered. Additionally, the petitioned area included waters outside the U.S. EEZ, however, joint NMFS and FWS regulations provide that areas outside of U.S. jurisdiction not be designated as critical habitat (50 CR 424.12(h)), so any areas outside of the U.S. EEZ were excluded from our analysis. Therefore, this CH analysis evaluated approximately 292,600 square miles (757,833 square km) of Pacific waters within the U.S. West Coast EEZ.

We considered various alternatives to the critical habitat designation for the leatherback sea turtle. The alternative of not designating critical habitat for leatherbacks would impose no economic, national security, or other relevant impacts, but would not provide any conservation benefit to the species. This alternative was considered and rejected because such an approach does not meet the legal requirements of the ESA and would not provide for the conservation of the species. The alternative of designating all potential critical habitat areas (*i.e.,* no areas excluded) also was considered and rejected because, for a number of areas, the economic benefits of exclusion outweighed the benefits of inclusion, and we determined that exclusion of these areas would not significantly impede conservation or result in extinction of the species. The total estimated annualized economic impact associated with the designation of all potential critical habitat areas would be $3.8 million to $25.5 million (discounted at 7 percent) or $3.5 million to $25 million (discounted at 3 percent). An alternative to designating critical habitat within all of the areas considered for designation is the designation of critical habitat within a subset of those areas. Under section 4(b)(2) of the ESA, we must consider the economic impacts, impacts to national security, and other relevant impacts of designating any particular area as critical habitat. NMFS has the discretion to exclude an area from designation as critical habitat if the benefits of exclusion (*i.e.,* the impacts that would be avoided if an area were excluded from the designation) outweigh the benefits of designation (*i.e.,* the conservation benefits if an area were designated), so long as exclusion of the area will not result in extinction of the species. Exclusion under section 4(b)(2) of the ESA of one or more of the particular areas considered for designation would reduce the total impacts of designation. The determination of which particular areas and how many to exclude depends on NMFS' ESA 4(b)(2) analysis, which is conducted for each area and described in detail in the 4(b)(2) report. Under the preferred alternative, we propose to exclude 5 out of 8 areas considered. The total estimated economic impact associated with this proposed rule is $3.1 million to $20.4 million (discounted at 7 percent) or $2.8 million to $20 million (discounted at 3 percent).

We believe that the exclusion of these areas would not significantly impede conservation or result in the extinction of the leatherback sea turtle. We selected this alternative because it would result in a critical habitat designation that provides for the conservation of the species while reducing the economic impacts on entities. This alternative also meets ESA and joint NMFS and USFWS regulations concerning critical habitat.

Leatherback Natural History

The leatherback is the sole remaining member of the taxonomic family Dermochelyidae. All other extant sea turtles belong to the family Cheloniidae. Leatherbacks are the largest marine turtle, with a curved carapace length (CCL) often exceeding 150 cm and front flippers that can span 270 cm (NMFS and USFWS, 1998). The leatherback's slightly flexible, rubber-like carapace is distinguishable from other sea turtles that have carapaces with bony plates covered with horny scutes. In adults, the carapace consists mainly of tough, oil-saturated connective tissue raised into seven prominent ridges and tapered to a blunt point posteriorly. The carapace and plastron are barrel-shaped and streamlined. Leatherbacks display several unique physiological and behavioral traits that enable this species to inhabit cold water, unlike other chelonid species. These include a countercurrent circulatory system (Greer *et al.,* 1973), a thick layer of insulating fat (Goff and Lien, 1988; Davenport *et al.,* 1990), gigantothermy (Paladino *et al.,* 1990), and the ability to elevate body temperature through increased metabolic activity (Southwood *et al.,* 2005; Bostrom and Jones, 2007). These adaptations enable leatherbacks to extend their geographic range farther than other species of sea turtles.

The leatherback life cycle is broken into several stages: (1) Egg/hatchling; (2) post-hatchling; (3) juvenile; (4) sub-adult; and (5) adult. There is still uncertainty regarding the age at first reproduction. The most recent study, based on skeletochronological data from scleral ossicles, suggests that leatherbacks in the western North Atlantic may not reach maturity until 29 years of age (Avens *et al.,* 2009), which is longer than earlier estimates (Pritchard and Trebbau, 1984: 2–3 years; Rhodin, 1985: 3–6 years; Zug and Parham, 1996: 13–14 years for females; Dutton *et al.,* 2005: 12–14 years for leatherbacks nesting in the U.S. Virgin Islands). The average size of reproductively active females is generally 150–162 cm CCL for Atlantic, western Pacific, and Indian Ocean populations, and 140–150 cm CCL for eastern Pacific populations (Hirth *et al.,* 1993; Starbird and Suarez, 1994; Benson *et al.,* 2007a; Benson *et al.,* 2007d). However, females as small as 105–125 cm CCL have been observed nesting at various sites (Stewart *et al.,* 2007). Rhodin *et al.* (1996) speculated that extreme rapid growth may be possible in leatherbacks due to a mechanism that allows fast penetration of vascular canals into the fast growing cartilaginous matrix of their bones. Whether the vascularized cartilage in leatherbacks serves to facilitate rapid growth, or some other physiological function, has not yet been determined.

Female leatherbacks typically nest on sandy, tropical beaches at intervals of 2 to 4 years (McDonald and Dutton, 1996; Garcia and Sarti, 2000; Spotila *et al.,* 2000). Females lay clutches of approximately 100 eggs several times during a nesting season, typically at 8–12 day intervals. Female leatherbacks appear to exhibit more variable nesting site fidelity than cheloniids and may nest at more than one beach in a single season (Eckert *et al.,* 1989a; Keinath and Musick, 1993; Steyermark *et al.,* 1996; Dutton *et al.,* 2005). This nesting behavior has been observed in the western Pacific Ocean; one female nesting on Jamursba-Medi, Indonesia was observed nesting approximately 30 km east on Wermon, Indonesia a few weeks later (S. Benson, NMFS, April 2006, pers. comm.).

A comparison of sex ratios between Atlantic and some Pacific nesting populations suggests that Pacific populations may be more female biased (Binckley *et al.,* 1998) than Atlantic populations (Godfrey *et al.,* 1996; Turtle Expert Working Group, 2007). However, caution is necessary when making basin-wide comparisons because only one study was conducted in the Pacific (Binckley *et al.,* 1998) and sex ratios may vary by beach or even clutch. Chevalier *et al.* (1999) compared temperature-dependent sex determination patterns between the Atlantic (French Guiana) and the Pacific (Playa Grande, Costa Rica) and found that the range of temperatures producing both sexes was significantly narrower for the Atlantic population.

Reliable estimates of survival and mortality at different life history stages are not easily obtained. The annual mortality for leatherbacks that nested at Playa Grande, Costa Rica, was estimated to be 34.6 percent in 1993–1994 and 34.0 percent in 1994–1995 (Spotila *et al.,* 2000). Leatherbacks nesting in French Guiana and St. Croix had estimated annual survival rates of 91 percent (Rivalan *et al.,* 2005b) and 89 percent (Dutton *et al.,* 2005) respectively. For the St. Croix population, the average annual juvenile survival rate was estimated to be approximately 63 percent, and the total survival rate from hatchling to first year of reproduction for a female was estimated to be between 0.4 and 2 percent, given an assumed age at first reproduction between 9 and 13 years (Eguchi *et al.,* 2006). Spotila *et al.* (1996) estimated first year survival rates for leatherbacks at 6.25 percent. Individual female leatherbacks have been observed to reproduce as long as 25 years (Hughes, 1996; D. Dutton, Ocean Planet Research, Inc., August 2009, pers. comm.). The data suggest that leatherbacks follow a life history strategy similar to many other long-lived species that delay age of maturity, have low and variable survival in the egg and juvenile stages, and have relatively high and constant annual survival in the subadult and adult life stages (Spotila *et al.,* 1996; 2000; Crouse, 1999; Heppell *et al.,* 1999; 2003; Chaloupka, 2002).

Leatherbacks have the most extensive range of any living reptile and have been reported circumglobally throughout the oceans of the world (Marquez, 1990; NMFS and USFWS, 1998). Leatherbacks can forage in the cold temperate regions of the oceans, occurring at latitudes as high as 71° N. and 47° S.; however, nesting is confined to tropical and subtropical latitudes. In the Pacific Ocean, significant nesting aggregations occur primarily in Mexico, Costa Rica, Indonesia, the Solomon Islands, and Papua New Guinea. In the Atlantic Ocean, significant leatherback nesting aggregations have been documented on the west coast of Africa, from Guinea-Bissau south to Angola, with dense aggregations in Gabon. In the wider Caribbean Sea, leatherback nesting is broadly distributed across 36 countries or territories with major nesting colonies (≤1,000 females nesting annually) in Trinidad, French Guiana, and Suriname (Dow *et al.,* 2007). In the Indian Ocean, nesting aggregations are reported in South Africa, India and Sri Lanka. Leatherbacks have not been reported to nest in the Mediterranean Sea.

Migratory routes of leatherbacks are not entirely known. However, recent satellite telemetry studies have documented transoceanic migrations between nesting beaches and foraging areas in the Atlantic and Pacific Ocean basins (Ferraroli *et al.,* 2004; Hays *et al.,* 2004; James *et al.,* 2005; Eckert, 2006; Eckert *et al.,* 2006; Benson *et al.,* 2007a). In a single year, a leatherback may swim more than 10,000 kilometers (Eckert, 2006; Eckert *et al.,* 2006). Leatherbacks

nesting in Central America and Mexico migrate thousands of miles into tropical and temperate waters of the South Pacific (Eckert and Sarti, 1997). After nesting, females from Jamursba-Medi, Indonesia, make long-distance migrations across the equator either to the eastern North Pacific, westward to the Sulawasi and Sulu and South China Seas, or northward to the Sea of Japan (Benson *et al.,* 2007a). One turtle tagged after nesting in July at Jamursba-Medi arrived in waters off Oregon in August (Benson *et al.,* 2007a) coincident with seasonal maxima aggregations of jellyfish (Shenker, 1984; Suchman and Brodeur, 2005). Other studies similarly indicate that leatherbacks arrive along the Pacific coast of North America during the summer and fall months, when large aggregations of jellyfish form (Bowlby, 1994; Starbird *et al.,* 1993; Benson *et al.,* 2007b; Graham, 2009). Leatherbacks primarily forage on cnidarians (jellyfish and siphonophores) and, to a lesser extent, tunicates (pyrosomas and salps) (NMFS and USFWS, 1998). Largely pelagic, leatherbacks forage widely in temperate waters and exploit convergence zones and upwelling areas in the open ocean along continental margins and in archipelagic waters (Morreale *et al.,* 1994; Eckert, 1998; 1999).

Critical Habitat

Section 4(b)(2) of the ESA requires NMFS to designate critical habitat for threatened and endangered species ''on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.'' This section also grants the Secretary of Commerce (Secretary) discretion to exclude any area from critical habitat if he determines ''the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat.'' The Secretary's discretion is limited, as he may not exclude areas that ''will result in the extinction of the species.''

The ESA defines critical habitat under section 3(5)(A) as: ''(i) The specific areas within the geographical area occupied by the species, at the time it is listed * * *, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed * * * upon a determination by the Secretary that such areas are essential for the conservation of the species.''

If critical habitat is designated, section 7 of the ESA requires Federal agencies to ensure they do not fund, authorize, or carry out any actions that will destroy or adversely modify that habitat. This requirement is additional to the section 7 requirement that Federal agencies ensure their actions do not jeopardize the continued existence of listed species.

Methods and Criteria Used To Identify Critical Habitat

In the following sections, we describe the relevant definitions and requirements in the ESA, our implementing regulations, and the key information and criteria used to prepare this proposed critical habitat designation. In accordance with section 4(b)(2) of the ESA and our implementing regulations (50 CFR 423.12(a)), this proposed rule is based on the best scientific information available.

To assist with the revision of leatherback critical habitat, we convened a critical habitat review team (CHRT) consisting of biologists from NMFS Headquarters, the Southwest and Northwest Regional Offices, and the Southwest and Northwest Fisheries Science Centers. The CHRT members had experience and expertise on leatherback biology, distribution and abundance of the species along the U.S. West Coast as it relates to oceanography, consultations and management, and/or the critical habitat designation process. The CHRT used the best available scientific data and their best professional judgment to: (1) Verify the geographical area occupied by the leatherbacks at the time of listing; (2) identify the physical and biological features essential to the conservation of the species that may require special management considerations or protection; (3) identify specific areas within the occupied area containing those essential physical and biological features; (4) evaluate the conservation value of each specific area; and (5) identify activities that may affect any designated critical habitat. The CHRT's evaluation and conclusions are described in detail in the following sections.

Physical or Biological Features Essential for Conservation

Joint NMFS and USFWS regulations (50 CFR 424.12(b)) state that in determining what areas are critical habitat, the agencies ''shall consider those physical and biological features that are essential to the conservation of a given species and that may require special management considerations or protection.'' Features to consider may include, but are not limited to: ''(1) Space for individual and population growth, and for normal behavior; (2) Food, water, air, light, minerals, or other nutritional or physiological requirements; (3) Cover or shelter; (4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally; (5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.'' The regulations also require agencies to ''focus on the principle biological or physical constituent elements'' (hereafter referred to as ''Primary Constituent Elements'' or PCEs) within the specific areas considered for designation, which may include, but are not limited to, the following: spawning sites, feeding sites, water quality or quantity, geological formation, and tide.

The northeastern Pacific Ocean is a highly variable environment where the habitat upon which leatherbacks and other marine species depend can change rapidly. Although some relatively permanent features are present, transient oceanographic features, such as eddies or fronts, are strong drivers of ecological interactions. The major current of the region is the southward-flowing California Current, which is the eastern boundary current within the North Pacific Ocean (Huyer, 1983; Hickey, 1979; 1998). The California Current is subject to significant variations in seasonal (Barber and Smith, 1981; Hutchings *et al.,* 1995; Castelao *et al.,* 2006), inter-annual (*e.g.* El Niño: Barber and Chavez, 1983), and decadal (*e.g.* Pacific Decadal Oscillation (PDO) cycles: McGowan *et al.,* 1998; 2003) time scales, adding variability to local productivity resulting from upwelling (Longhurst, 1996).

Wind-driven coastal upwelling drives primary productivity within waters off the U.S. West Coast. As nutrient-rich water comes to the surface, phytoplankton blooms occur and are transported offshore. Productivity dissipates as upwelled waters move offshore (away from regions of upwelling) and phytoplankton deplete available nutrients (Thomas and Strub, 2001). Episodic intrusions of offshore, nutrient depleted water and offshore movement of nutrient-rich water occur throughout the year. The characteristics of coastal upwelling vary over the extent of the California Current, with upwelling north of Cape Blanco (~42.8° N.) confined to a narrower band than upwelling farther south (Huyer, 1983;

Brodeur *et al.,* 2004). Seasonally, upwelling begins earlier and lasts longer in the southern California Current. The peak time of sea turtle sightings (July-September) in neritic waters corresponds to the period when intermittent relaxation of upwelling causes sea surface temperatures to increase to their warmest annual levels. During these relaxation events, there is less mixing of nutrient rich upwelled waters and greater retention of these waters near the coast.

Eddy and frontal features are also critical elements of regional productivity. The interaction of the California Current and topographic features, such as banks, canyons, and other submerged features, as well as shoreline features, such as Cape Blanco, result in the formation of eddies, jets, and squirts (Barth *et al.,* 2000). The most prominent regional eddy is the Juan de Fuca Eddy, which develops offshore of northern Washington at the mouth of the Strait of Juan de Fuca as a result of wind-driven current interaction with the continental slope (Hickey and Banas, 2003). The eddy is persistent from the spring through the fall and delivers nutrient-rich waters to the surface (Freeland and Denman, 1982; Hickey and Banas, 2003). Where eddy features interact with coastal waters, oceanic fronts are often found. Off Oregon and Washington, these frontal features tend to reoccur in the same places, such as near Cape Blanco in Oregon or off Vancouver Island and the coast of Washington (Freeland and Denman, 1982).

Leatherbacks are often described as a pelagic species; however, it is becoming increasingly evident that they aggregate in productive coastal areas to forage on preferred jellyfish prey (scyphomedusae) (Houghton *et al.,* 2006; Benson *et al.,* 2007b; Witt *et al.,* 2007). While their range spans the entire Pacific, occupation of the California Current is highly seasonal. Most of our current knowledge of leatherback turtle use of the California Current comes from recent and ongoing telemetry studies, aerial surveys, and ship-based research conducted primarily in the nearshore areas off central California. The telemetry work has documented trans-Pacific migrations between the western tropical Pacific and the California Current; however, it is difficult to define specific migratory corridors.

There is likely an important temporal component to the arrival and departure of leatherbacks to and from key nearshore foraging areas. Current research has shown that leatherbacks clearly target the dense aggregations of brown sea nettle (*Chrysaora fuscescens)* that occur near the central California coast and north through Washington during summer and fall (Peterson *et al.,* 2006; Harvey *et al.,* 2006; Benson *et al.,* 2006; 2008). Leatherbacks have also been observed foraging on other scyphomedusae in this area, particularly moon jellies (*Aurelia labiata)* (Eisenberg and Frazier, 1983; S. Benson, NMFS, September 2007, pers. comm.). The CHRT hypothesized that leatherbacks are primarily transiting through offshore areas to get to these dense nearshore aggregations of scyphomedusae, and that the boundary between primary coastal foraging habitat and the offshore areas may vary seasonally and inter-annually with changing oceanographic conditions. In some years, the primary foraging habitat may be poor, or oceanographic features may deter migration into the nearshore habitat (Benson *et al.,* 2007c), resulting in a more diffuse or offshore leatherback distribution.

Although jellyfish blooms are seasonally and regionally predictable, their fine-scale local distribution is patchy and dependent upon oceanographic conditions. Some descriptive studies have been conducted on the distribution of scyphomedusae along the west coast of North America; however, much more information is needed to characterize the temporal variability from seasonal patterns to long-term climate-linked variations. Moreover, it is ultimately the benthic polyp stages that contribute to seasonal and annual population variation of the adult medusae, and little information exists on their populations in open coastal systems, including the California Current upwelling system (W.M. Graham, University of South Alabama, September 2009, pers. comm.). Graham *et al.* (2001) found that jellyfish tend to collect along boundaries: mesoscale oceanic fronts, local circulation patterns, thermoclines, haloclines, etc., and that scyphomedusae (specifically *C. fuscescens*) are closely linked to the physical structure of the water column and the dynamics of upwelling-related circulations. An important example is the Columbia River plume which can act to aggregate and retain jellyfish in the northern California Current (Shenker, 1984). These hydrographic features can be persistent or recurrent (seasonally) in space and time (Castelao *et al.,* 2006).

Prey concentrating forces may also be fixed in space and time associated with geomorphologic features (*e.g.* headlands, capes, seamounts, and canyons). Upwelling shadows (*e.g.* north Monterey Bay) are areas of sustained high productivity (Graham and Largier, 1997) and these areas are favorable for leatherback prey (Graham, 1994; Benson *et al.,* 2007b). Features such as the Monterey Bay upwelling shadow often persist longer than other coastal fronts of similar length scale (Graham, 1993). *C. fuscescens* are highly abundant north of Cape Blanco off the Oregon Coast (Suchman and Brodeur, 2005; Reese, 2005) where leatherback occurrence has been documented from sighting records and telemetry studies (Bowlby, 1994; Benson *et al.,* 2007a; 2007c). Reese (2005) found that *A. labiata* was frequently abundant south of Cape Blanco, off the coast of Crescent City, CA (~42° N). Reese (2005) also described areas of persistent jellyfish abundance north and south of Cape Blanco and farther north along the Oregon coast inshore of Heceta Bank (~44° N), all inshore of the 100m isobath line. The abundance of jellyfish close to shore may be enhanced by their need for substrate during the benthic stage of their lifecycle (Suchman and Brodeur, 2005). Jellyfish are largest and most abundant in coastal waters of California, Oregon, and Washington during late summer-early fall months (Shenker, 1984; Suchman and Brodeur, 2005; Graham, 2009), which overlaps with the time when turtles are most frequently sighted near Monterey Bay (Starbird, 1993; Benson *et al.,* 2007b) and in Oregon and Washington waters (Bowlby, 1994).

There is evidence that prey-concentrating hydrographic features can be influenced by El Nino and other climate forcing. Survey data has shown a poleward and offshore re-distribution of *C. fuscescens* during El Nino events (Lenarz *et al.,* 1995). However, it is likely that the reliable availability of prey associated with fixed or recurrent physical features is the reason for the leatherbacks trans-Pacific migration from Western Pacific nesting beaches and their presence in neritic west coast waters during summer and fall.

Jellyfish, and to a lesser extent tunicates (pyrosomas and salps), have a low nutritive value per unit biomass, although the nutritional value of the entire organism can be quite high in the case of large scyphomedusae (Doyle *et al.,* 2007). Davenport and Balazs (1991) debated the hypothesis that the source of nutrients for leatherbacks may be from the stomach contents of the prey, rather than from the medusae and tunicates themselves. Leatherbacks consuming *C. fuscescens* might also ingest additional prey items found in the stomach contents of this jellyfish (Suchman *et al.,* 2008). Regardless, leatherbacks must eat a massive amount of jellyfish per day, approximately 20–

30 percent of their body weight compared to cheloniids, which eat approximately 2–3 percent of their body weight (Davenport and Balazs, 1991). It has been estimated that an adult leatherback would need to eat about 50 large jellyfish (equivalent to approximately 200 liters) per day to maintain its nutritional needs (Bjorndal, 1997). Leatherbacks have been observed at or near the surface consuming *C. fuscescens* within upwelling shadows or oceanographic retention areas within neritic waters off central California (Benson *et al.,* 2003; 2007b); however, satellite-linked time-depth recorders suggest foraging can also occur at deeper offshore waters of the U.S. West Coast (S. Benson, NMFS, February 2006, pers. comm.). Leatherbacks likely select *C. fuscescens* as prey over other scyphomedusae species in neritic central California waters because *C. fuscescens* is larger and more nutritionally beneficial than other available scyphomedusae species (Graham, 2009). The CHRT considered areas as primary foraging habitat if they contain great densities of *C. fuscescens;* secondary foraging habitat if they contain *A. labiata* and some scattered C. fuscescens; and tertiary foraging habitat if they contain only scattered *A. labiata.*

Although leatherbacks are capable of deep diving (Lutcavage and Lutz, 1997; Hays *et al.,* 2004), the majority of their time is spent at or near the surface. Depth profiles developed for four leatherbacks tagged and tracked from Monterey Bay in 2000 and 2001 (using satellite-linked dive recorders) showed that most dives were to depths of less than 100 meters and leatherbacks spent most of their time shallower than 80 meters. Dutton (NMFS, January 2004, pers. comm.) estimated that leatherbacks spend 75–90 percent of their time at depths of less than 80 meters based on preliminary data analysis. Within neritic central California waters, leatherbacks spend approximately 50 percent of their time at or within one meter of the surface while foraging and over 75 percent of their time within the upper five meters of the water column (Benson *et al.,* 2007b). Leatherback turtles also appear to spend almost the entire dive time traveling to and from maximum depth, suggesting that efficient transit of the water column is of paramount importance (Eckert *et al.,* 1989b). Leatherbacks have been observed periodically resting on the surface, presumably to replenish oxygen stores after repeated dives (Harvey *et al.,* 2006; Benson *et al.,* 2007b).

Primary Constituent Elements (PCEs)

Based on the aforementioned information, the CHRT identified two PCEs essential for the conservation of leatherbacks in marine waters off the U.S. West Coast: (1) Occurrence of prey species, primarily scyphomedusae of the order Semaeostomeae (*Chrysaora, Aurelia, Phacellophora,* and *Cyanea*) of sufficient condition, distribution, diversity, and abundance to support individual as well as population growth, reproduction, and development; (2) Migratory pathway conditions to allow for safe and timely passage and access to/from/within high use foraging areas.

When evaluating the second identified PCE, migratory pathway conditions or passage, the CHRT considered the type of activities that could affect or impede the passage of a leatherback turtle. After reviewing several potential types of impediments, the CHRT determined that only permanent or long-term structures that alter the habitat would be considered as having potential effects on passage. Given this determination, the CHRT did not consider fishing gear or vessel traffic as potential threats to passage.

The CHRT considered a third PCE—water quality to support normal growth, development, viability, and health. This PCE would encompass bioaccumulation of contaminants and pollutants in prey and subsequent accumulation in leatherbacks as well as direct ingestion and contact with contaminants and pollutants. The CHRT eliminated this option because knowledge on how water quality affects scyphomedusae was lacking, and, where data were available, the CHRT believed prey condition, distribution, diversity, and abundance would encompass water quality considerations regarding bioaccumulation. The CHRT also felt that direct ingestion and contact with contaminants and pollutants would be encompassed in a direct effects analysis for the listed species. We encourage public comment on the exclusion of water quality as a PCE (*see* **ADDRESSES**).

Geographical Area Occupied and Specific Areas

One of the first steps in the critical habitat revision process was to define the geographical area occupied by the species at the time of listing. As described above, leatherbacks are distributed circumglobally throughout the oceans of the world, and along the U.S. West Coast (including the petitioned area) within the U.S. EEZ. The CHRT reviewed a variety of data sources to identify specific areas within and adjacent to the petitioned area that contain one or more PCE requiring special management considerations or protection. Information reviewed included: turtle distribution data from nearshore aerial surveys (Peterson *et al.,* 2006; Benson *et al.,* 2006; 2007b; 2008; NMFS unpublished data); offshore ship sightings and fishery bycatch records (Bowlby, 1994; Starbird *et al.,* 1993; Bonnell and Ford, 2001; NMFS SWR Observer Program, unpublished data); satellite telemetry data (Benson *et al.,* 2007a; 2007c; 2008; 2009; NMFS unpublished data); distribution and abundance information on the preferred prey of leatherbacks (Peterson *et al.,* 2006; Harvey *et al.,* 2006; Benson *et al.,* 2006; 2008); bathymetry (Benson *et al.,* 2006; 2008); and regional oceanographic patterns along the U.S. West Coast (Parrish *et al.,* 1983; Shenker, 1984; Graham, 1994; Suchman and Brodeur, 2005; Benson *et al.,* 2007b).

Joint NMFS and FWS regulations provide that areas outside of U.S. jurisdiction not be designated as critical habitat (50 CR 424.12(h)), so any areas outside of the U.S. EEZ were excluded from our analysis. Thus, the occupied geographic area under consideration for this designation was limited to areas along the U.S. West Coast within the U.S. EEZ from the Washington/Canada border to the California/Mexico border.

The CHRT recognized that leatherback habitat use appears to vary seasonally and spatially. The boundaries chosen to define each specific area represent the CHRT's best estimate of where these turtles transition from foraging to migrating or where prey composition or abundances change. Most leatherback sightings occur in marine waters within the neritic zone. The species may pursue prey as far as the extent of mean lower low water (S. Benson, NMFS, September 2000, unpublished) so the CHRT considered this as the shoreward extent of distribution in those specific areas with documented nearshore distribution.

The following paragraphs describe each specific area (shown on Figure 1) and summarize the data used to determine that each area is occupied by leatherbacks:

Area 1: Nearshore area from Point Arena (peninsula where the Point Arena Lighthouse is located) to Point Sur California and offshore to the 200 meter isobath. The specific boundaries are the area bounded by Point Sur (36°18′22″ N./121°54′9″ W.) then north along the shoreline following the line of mean lower low water to Point Arena, California (38°57′14″ N./123°44′26″ W.) then west to 38°57′14″ N./123°56′44″ W. then south along the 200 meter isobath

to 36°18′22″ N./122°4′13″ W. then east to the point of origin at Point Sur. Leatherback presence is based on aerial surveys, shipboard sightings, and telemetry studies. This area is a principal California foraging area (Benson *et al.,* 2007b) with high densities of primary prey species *C. fuscescens* occurring here seasonally from April to November (Graham, 1994).

Area 2: Nearshore area from Cape Flattery, Washington, to Umpqua River (Winchester Bay), Oregon and offshore to a line approximating the 2000 meter isobath. The specific boundaries are the area bounded by Winchester Bay, Oregon (at the tip of the south jetty) north along the shoreline following the line of mean lower low water to Cape Flattery, Washington (48°23′10″ N./124°43′32″ W.) then north to the U.S./Canada boundary at 48°29′38″ N./124°43′32″ W. then west and south along the line of the U.S. EEZ to 47°57′38″ N./126°22′54″ W. then south along a line approximating the 2,000 meter isobath that passes through points at 47°39′55″ N./126°13′28″ W., 45°20′16″ N./125°21′ W. to 43°40′8″ N./125°17′ W. then east to the point of origin at Winchester Bay. Leatherback presence is based on aerial surveys, shipboard surveys, fishery interaction data, and telemetry studies. This area is the principal Oregon/Washington foraging area and includes important habitat associated with Heceta Bank, Oregon. The greatest densities of a primary prey species *C. fuscescens* occur north of Cape Blanco, Oregon and in shallow inner shelf waters (Suchman and Brodeur, 2005).

Area 3: Nearshore area south of Area 2 from Umpqua River (Winchester Bay), Oregon, to Point Arena, California, shoreward of a line approximating the 2000 meter isobath. This line runs from 43°40′ N./125°17′ W. through 43°24′10″ N./125°16′ W., 42°39′3″ N./125°7′37″ W., 42°24′49″ N./125°0′13″ W., 42°3′17″ N./125°9′51″ W., 40°49′38″ N./124°49′29″ W., 40°23′33″ N./124°46′32″ W., to 38°57′14″ N./123°56′44″ W. then east to Point Arena. Leatherback presence is based on aerial survey data. This area includes major upwelling centers between Cape Blanco, Oregon and Cape Mendocino, California and is characterized by cold sea surface temperatures (<13° C) and great densities of the prey species *A. labiata.* Although leatherback use is limited, this area could experience greater use during warm water episodes such as an El Nino event.

Area 4: Offshore area west and adjacent to Area 2 (see above). Includes waters west to a line from 47°57′38″ N./126°22′54″ W. southwest to 43°40′8″ N./129°1′30″ W. Leatherback presence is based on aerial surveys. This area is used primarily as a region of passage to/from Areas 2 and 5 (see below) although prey species are present and it is used as a secondary foraging area. This area contains large numbers of *A. labiata* and some *C. fuscescens,* with greater densities of *C. fuscescens* found east of Area 4 in Area 2.

Area 5: Offshore area south and adjacent to Area 4 and west and adjacent to the northern portion of Area 3 (see above). This area includes all waters north of a line consistent with the California/Oregon border and west to the boundary of the U.S. EEZ. Leatherback presence is based on aerial surveys, telemetry studies, and fishery interaction data. This area includes prey species within primary offshore foraging habitat and passage to Areas 2, 3 and 4 (see above).

Area 6: Offshore area south and adjacent to Area 5 and west and adjacent to the southern portion of Area 3 (see above) offshore to a line connecting 42° N./129° W. and 38°57′14″ N./126°22′55″ W. Leatherback presence is based on aerial surveys, telemetry studies, and fishery interaction data. This area includes prey species within secondary foraging habitat west of Cape Mendocino and passage between Area 5 (see above) and Area 7 (see below).

Area 7: Nearshore area from Point Arena, California, to Point Vicente, California (35°44′30″ N./118°24′44″ W.), exclusive of Area 1 (see above) and offshore to a line connecting 38°57′14″ N./126°22′55″ W. and 33°44′30″ N./121°53′41″ W. This area includes waters surrounding the northern Santa Barbara Channel Islands (San Miguel, Santa Rosa, Santa Cruz, and Anacapa Islands). Leatherback presence is based on aerial surveys, telemetry studies, and fishery interaction data. This area includes prey species within secondary foraging areas characterized by ocean frontal zones west of the continental shelf that are occupied by aggregations of *A. labiata* and lower densities of *C. fuscescens.* The frontal zones are created by a series of quasi-permanent, retentive eddies or meanders, associated with offshore-flowing squirts and jets anchored at coastal promontories between Point Reyes and Point Sur, which create linkages between nearshore waters of Area 1 and offshore waters of the California Current. Telemetry data indicate that this area is commonly utilized by leatherbacks, particularly when jellyfish availability in Area 1 is poor. This area also provides passage to/from foraging habitat in Areas 1, 5, and 6 (see above), often through the northern Santa Barbara Channel Islands during the spring and early summer months.

Area 8: Extreme offshore area west and adjacent to Areas 6 and 7 from the California/Oregon border then south of Area 7, including areas closer to the coast, along the U.S. EEZ to the U.S./Mexico border. The western and southern borders of Area 8 are the U.S. EEZ. This area includes waters surrounding the southern Santa Barbara Channel Islands (San Nicholas, Santa Barbara, Catalina, and San Clemente Islands). Leatherback presence is based on aerial surveys, telemetry studies, and fishery interaction data. This area includes prey species within tertiary foraging habitat characterized by warm, low salinity offshore waters and passage to/from foraging habitat in Areas 1, 5, 6, and 7 (see above).

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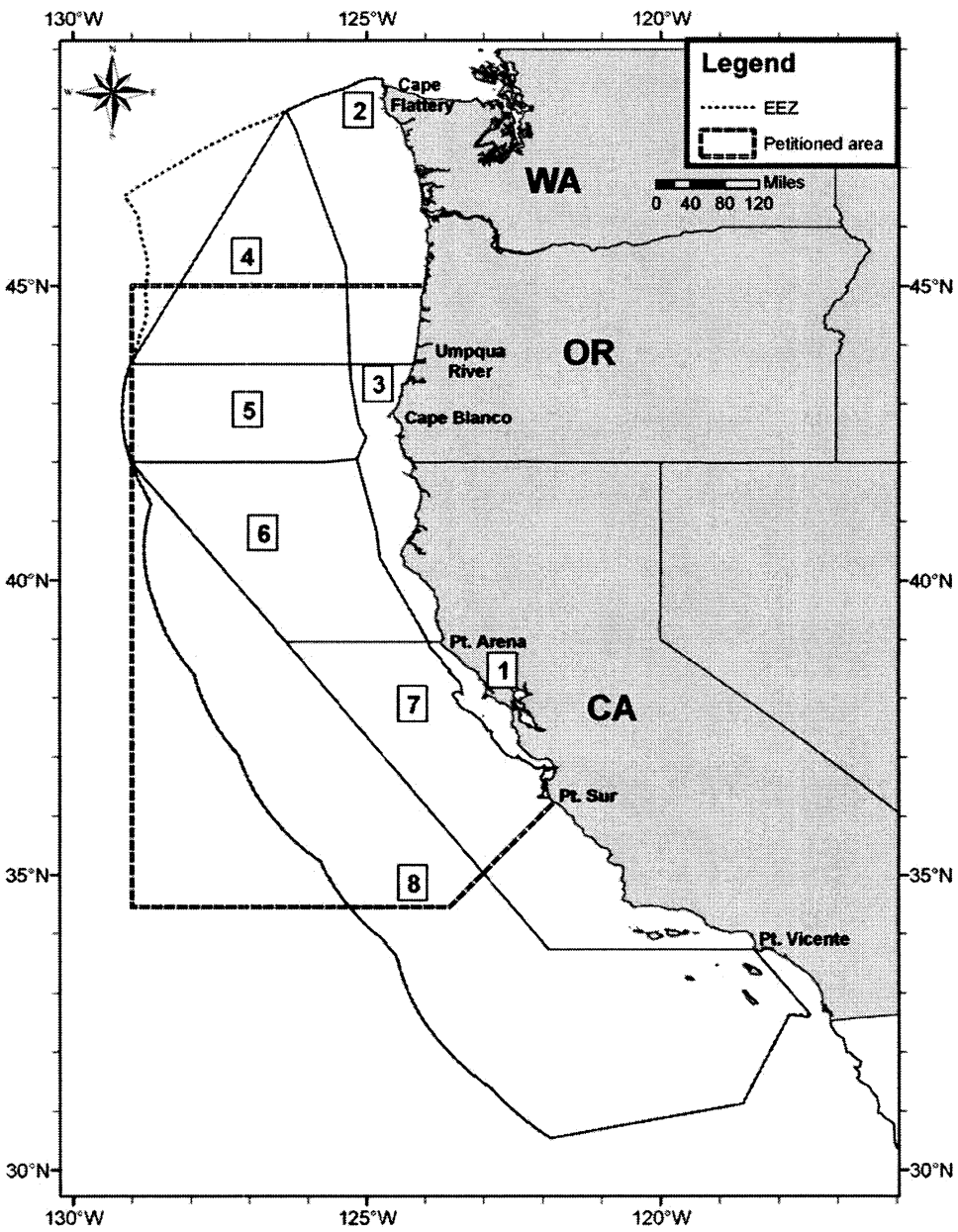
Figure 1. Specific Areas Considered and the Petitioned Area



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Unoccupied Areas

Section 3(5)(A)(ii) of the ESA authorizes designation of ''specific areas outside the geographical areas occupied by the species at the time it is listed'' if those areas are determined to be essential to the conservation of the species. Joint NMFS and USFWS regulations (50 CFR 424.12(e)) emphasize that the agency shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species. At the present time we have not identified additional specific areas outside the geographic area occupied by leatherbacks that may be essential for the conservation of the species.

Special Management Considerations or Protections

An occupied area may be designated as critical habitat if it contains physical and biological features that ''may require special management considerations or protection.'' Joint NMFS and USFWS regulations (50 CFR 424.02(j)) define ''special management considerations or protection'' to mean ''any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species.'' The CHRT identified a number of activities that may threaten the identified PCEs, as impacts to the PCEs also impact the physical and biological features. The CHRT grouped these activities into eight

activity types: Pollution from point sources (*e.g.* National Pollution Discharge Elimination System (NPDES)); runoff from agricultural pesticide use; oil spills; power plants; aquaculture; desalination plants; tidal energy or wave energy projects; and liquid natural gas (LNG) projects. All of these activities have the potential to affect the PCEs by altering prey abundance, prey contamination levels, and free passage between and within specific areas (Table 1). Some of these activities may also have the potential to impact PCEs positively (*e.g.* infrastructure for aquaculture may provide substrate and habitat for the benthic polyp stages of medusae).

The CHRT initially considered impacts to PCE's from potential offshore wind energy projects, but due to lack of data and uncertainty regarding the potential for offshore wind energy projects off the U.S. West Coast, they did not have enough information to fully evaluate costs and effects of wind projects alongside the analysis on tidal energy and wave energy projects. Therefore, the CHRT recommended that we exclude wind energy from this analysis and solicit public comment on this issue (*see* **ADDRESSES**).

The CHRT also considered impacts to PCE's from commercial fishing activities, but ultimately determined that commercial fisheries would not impact PCE's. When considering the prey PCE, the CHRT looked at potential fisheries that would target jellyfish, but no such fishery was anticipated, within the evaluated areas, in the foreseeable future. The bycatch of jellyfish in existing commercial fisheries was also considered, but it was determined that the level of bycatch was limited. When considering impacts to the passage PCE, the team considered whether fishing gear could be considered an impediment to the passage of leatherbacks to and from their foraging areas, and if the presence of that gear altered the habitat. It was determined that only permanent or long-term structures would be considered for their potential to affect habitat and the passage PCE. Additionally, the direct take of the species in fishing gear is more appropriately considered under the jeopardy standard in ESA section 7 consultations. Therefore, the CHRT recommended that we exclude commercial fishing activities from our analysis and solicit public comment on this issue (*see* **ADDRESSES**).

The CHRT also considered ocean acidification (and myriad contributing activities) as possibly affecting the prey PCE. The Class Scyphozoa, which includes *C. fuscescens* and *A. labiata,* has calcium sulfate hemihydrate statoliths, which may be affected by acidification. Winans and Purcell (in review) found no pH effect on production of new medusae (ephyrae); statoliths were not decreased in number, but were smaller in low pH. Iglesias-Rodriquez *et al.* (2008) found increases in biogenic calcification in phytoplankton with increased CO_2 using methods they argued were more realistic than those used in previous studies that showed decreased calcification with increasing PCO_2. Attrill *et al.* (2007) suggested that lower pH in parts of the North Sea opened an ecological niche leading to an increase in jellyfish abundance. Yet, Richardson and Gibbons (2008) repeated and expanded the work of Attrill *et al.* (2007) and found no correlation between ocean acidification and scyphomedusae abundance. Given equivocal or sparse data, the CHRT recommended that we exclude ocean acidification and the contributing activities from our analysis and solicit public comment on this issue (*see* **ADDRESSES**).

TABLE 1—SUMMARY OF OCCUPIED SPECIFIC AREAS, SURFACE AREA COVERED, THE PCES PRESENT, AND ACTIVITIES THAT MAY AFFECT THE PCES WITHIN EACH AREA SUCH THAT SPECIAL MANAGEMENT CONSIDERATIONS OR PROTECTION MAY BE REQUIRED

Specific area	Est. area (sq. mi)	PCE(s) present	Activities
Area 1	4,700 (12,173 sq. km)	Prey, Passage	Prey—point pollution, pesticides, oil spills, power plants, desalination plants, tidal wave/energy projects, aquaculture. Passage—oil spills, tidal wave/energy projects, aquaculture.
Area 2	24,500 (63,455 sq. km)	Prey, Passage	Prey—point pollution, pesticides, oil spills. Passage—oil spills.
Area 3	11,600 (30,044 sq. km)	Prey, Passage	Prey—point pollution, pesticides, oil spills, tidal wave/energy projects, LNG. Passage—oil spills, tidal wave/energy projects.
Area 4	30,000 (77,700 sq. km)	Prey, Passage	Prey—oil spills. Passage—oil spills.
Area 5	24,500 (63,455 sq. km)	Prey, Passage	Prey—oil spills. Passage—oil spills.
Area 6	34,200 (88,578 sq. km)	Prey, Passage	Prey—oil spills. Passage—oil spills.
Area 7	46,100 (119,398 sq. km)	Prey, Passage	Prey—point pollution, pesticides, oil spills, power plants, desalination plants, tidal wave/energy projects, LNG, aquaculture. Passage—oil spills, tidal wave/energy projects, aquaculture.
Area 8	117,000 (303,030 sq. km)	Prey, Passage	Prey— oil spills, LNG, aquaculture. Passage—oil spills, aquaculture.

Military Areas Ineligible for Designation

Recent amendments to the ESA preclude the Secretary from designating military lands as critical habitat if those lands are subject to an Integrated Natural Resource Management Plan (INRMP) under the Sikes Act and the Secretary certifies in writing that the plan benefits the listed species (Section 4(a)(3), Pub. L. 108–136). We are not aware of any INRMPs in the areas under

consideration for designation as critical habitat.

ESA Section 4(b)(2) Analysis

Section 4(b)(2) of the ESA requires us to use the best scientific information available in designating critical habitat. It also requires that before we designate any ''particular areas,'' we must consider the economic impacts, impacts on national security, and any other relevant impacts. The ESA does not define what ''particular areas'' means in the context of section 4(b)(2), or the relationship of particular areas to ''specific areas'' that meet the statute's definition of critical habitat. As there was no biological basis to further subdivide the eight ''specific areas'' identified within the occupied geographical area into smaller units, we treated these areas as the ''particular areas'' for our initial consideration of impacts of designation. Once impacts are determined, we decide whether to consider exercising discretion to exclude any areas. If we consider exercising such discretion, we are to weigh the benefits of excluding any particular area (avoiding the economic, national security or other costs) against the benefits of designating it (the conservation benefits to the species). If we conclude that the benefits of exclusion in any particular area outweigh the benefits of designation, we have discretion to exclude areas, so long as exclusion will not result in extinction of the species. We determined to proceed with evaluating the benefits of designation.

Benefits of Designation

The primary benefit of designation is the protection afforded under section 7 of the ESA, requiring all Federal agencies to ensure their actions are not likely to destroy or adversely modify critical habitat. This is in addition to the requirement that all Federal agencies ensure that their actions are not likely to jeopardize the continued existence of the species. The designation of critical habitat also provides other benefits such as improved education and outreach by informing the public about areas and features important to species conservation.

For the purposes of conducting the 4(b)(2) analysis, it was not possible to directly compare the benefits to the costs of designation. For a direct comparison, the benefits would need to be monetized, but we are unaware of available data that would allow us to monetize the benefits expected from ESA section 7 consultations, education, and outreach for the considered areas. As an alternative approach, we used the overall conservation value ratings that were calculated for each area by the CHRT to represent the qualitative conservation benefit of designation.

In evaluating the conservation value of each specific area, the CHRT assessed how leatherbacks use each area, the frequency and duration of that use, and the quality and quantity of prey species within each area. After reviewing the best available information, the CHRT determined that the eight specific areas varied in terms of potential conservation value for leatherback turtles. The CHRT used professional judgment to assign a relative biological importance score of 1, 2, or 3 (3 representing the highest importance) to each area for each of our two identified PCEs. Scores were then summed and used to assign an overall conservation rating of ''Very Low'', ''Low'', ''Medium'', or ''High'' for each specific area. Summed numeric equivalents for each conservation rating were: Very Low = 3 or less; Low = 4; Medium = 5; High = 6. The scoring criteria, parameter scores, and overall conservation rating for each specific area are summarized in Table 2.

TABLE 2—SUMMARY OF PRESENCE (YES/NO) OF PRIMARY CONSTITUENT ELEMENTS AND THE RESULTANT CONSERVATION VALUE RATINGS FOR SPECIFIC AREAS OCCUPIED BY LEATHERBACK TURTLES

Specific area	PCE Condition & Frequency 1 = Preferred prey rare or absent and passage conditions to/from/within high use foraging areas needed infrequently or inconsistently 2 = Preferred prey present but not consistently abundant or not well distributed and passage conditions to/from/within high use foraging areas are needed more frequently and consistently 3 = Preferred prey consistently abundant and well distributed and passage conditions to/from/within high use foraging areas needed frequently and consistently				Overall conservation rating
	Prey	Value	Passage	Value	Total
Area 1	Yes	3	Yes	3	High.
Area 2	Yes	3	Yes	3	High.
Area 3	Yes	2	Yes	1	Very Low.
Area 4	Yes	2	Yes	3	Medium.
Area 5	Yes	2	Yes	3	Medium.
Area 6	Yes	1	Yes	3	Low.
Area 7	Yes	2	Yes	3	Medium.
Area 8	Yes	1	Yes	3	Low.

Economic Benefits of Exclusion

To determine the economic benefits of excluding particular areas from designation, we estimated the potential cost of designation associated with each area. To do this we first accounted for the baseline level of protection afforded to leatherbacks based on existing Federal and state regulations. When calculating baseline cost estimates, the CHRT heavily relied on information from the draft economic reports supporting critical habitat designations for the southern resident killer whale (Industrial Economics Incorporated, 2006), green sturgeon (Industrial Economics Incorporated, 2008), and the final economic report for salmon and steelhead (NMFS, 2005). The level of future activities was developed using GIS data and other published data on existing, pending, or future actions (*e.g.* Federal Energy Regulatory Commission (FERC) permit license data for LNG projects).

In areas where listed species coexist with leatherbacks (particularly green sturgeon), a portion of affected future activities modifications (and associated costs) are expected to occur regardless of leatherback critical habitat designation. Thus, after estimating the number of projects that may potentially

require modifications, the CHRT applied an ''incremental score'' to more accurately represent the portion of the projects that would be affected solely by leatherback critical habitat designation. For activities that occur in areas with more existing protections (*e.g.* areas with Marine Sanctuaries or overlapping critical habitat with other listed species), the CHRT estimated that 30 percent of costs would be attributable to designated leatherback critical habitat. For activities that occur in areas with fewer existing protections (*e.g.* areas with other listed species), the CHRT estimated that 50 percent of costs would be attributable to designation of leatherback critical habitat (*see* economic report for more details).

Annual costs were estimated for each activity in each area and then modified by the incremental score percentage to determine the estimated costs for project modifications due to leatherback critical habitat designation. The majority of activity costs were projected 20 years into the future and where applicable, costs were adjusted for inflation to reflect 2009 values (with a 7 percent discount rate applied to future costs). The CHRT calculated low and high cost scenarios based on spatial considerations for activities that occur on land (*e.g.* agriculture pesticide application) and the likelihood of modifications to existing activities. Where applicable, the high cost scenario estimated costs for activities within 5 miles of the coastline; the low cost scenario estimated costs for activities within 1 mile of the coastline. Estimated costs were determined for all activities except LNG and aquaculture, therefore only a qualitative assessment was possible for these activities. The median value between the high and low cost scenarios was used as the estimated incremental cost for the designation of each area (*see* economic report for more details).

Exclusion of Particular Areas Based on Economic Impacts

The conservation benefit to the species resulting from the designation of a particular area is not directly comparable to the economic benefit resulting from the exclusion of that particular area. As explained above, we had sufficient information to monetize the estimated economic benefits of exclusion, but were not able to monetize the conservation benefits of designation. To qualitatively scale the economic cost estimates in the same manner as the conservation value ratings, we created economic thresholds (*see* Table 3) and assigned each area an economic rating based on its median annualized cost.

TABLE 3—ECONOMIC THRESHOLDS AND CORRESPONDING ECONOMIC RATINGS

Threshold	Economic rating
$20,000,000 or more	High.
$700,000–$19,999,999	Medium.
$25,000–$699,999	Low.
$0–$24,999	Very Low.

As shown in Table 3 above, we set the high economic threshold at $20 million or more in costs, based on an estimate of 3 percent of total revenue for activities associated with Area 7, the area with the highest estimated revenues and costs. The economic threshold between medium and low economic costs was set at $700,000 based on the median value of cost per area. A very low estimated cost threshold was set at less than $25,000, based on the presumed insignificant distributed burden this would place on affected activities. No areas currently under review as potential leatherback critical habitat have either high or very low economic costs using this economic scale (see the economic and ESA section 4(b)(2) reports for more details).

The dollar thresholds do not represent a judgment that areas with medium conservation value are worth no more than $19,999,999, or that areas with very low conservation value ratings are worth no more than $24,999. These thresholds represent the levels at which we believe the economic impact associated with a particular area would outweigh the conservation benefits of designating that area.

To weigh the benefits of designation against the benefits of exclusion, we compared the conservation value ratings against the economic ratings. Areas were determined to be eligible for exclusion based on economic impacts using three decision rules: (1) Areas with conservation value ratings of ''high'' or ''medium'' were eligible for exclusion only if they had an economic rating above the conservation rating, unless decision rule 3 applies; (2) Areas with conservation value ratings of ''low'' or ''very low'' were eligible for exclusion if they had an economic rating equal to or above the conservation value rating; and (3) Offshore areas with oil spills as the only activity that may affect PCEs are eligible for exclusion regardless of conservation value or economic ratings (*see* explanation below). We seek public comment on these decision rules (*see* **ADDRESSES**).

The dollar thresholds and decision rules provided a relatively simple process for identifying specific areas warranting consideration for exclusion. See Table 4 for a summary of the information used to determine which areas are eligible for exclusion based on economic impacts.

TABLE 4—MEDIAN ANNUAL COSTS AND RATINGS BY AREA

Areas	Median annualized cost	# Activities types that may affect PCEs	Economic rating	Conservation value rating	Eligible for exclusion based on economic impacts?
7	*$6,820,450	8	Medium	Medium	No.
1	*3,581,850	6	Medium	High	No.
3	*2,739,800	5	Medium	Very Low	Yes.
2	*1,345,950	3	Medium	High	No.
4	46,650	**1	Low	Medium	Yes.
5	46,650	**1	Low	Medium	Yes.
6	46,650	**1	Low	Low	Yes.
8	*46,650	3	Low	Low	Yes.

*Cost estimates for LNG and Aquaculture were not available so were not included in these estimates. See the economic report for more details.

**Oil spill is only activity.

Based on this analysis, Areas 3, 4, 5, 6 and 8 were identified as eligible for exclusion based on economic impacts. The Secretary may exclude any area from critical habitat if he determines that the benefits of exclusion outweigh

the benefits of designating such an area as critical habitat, unless he determines that failure to designate will result in the extinction of the species concerned. Therefore, the CHRT considered whether the exclusion of Areas 3, 4, 5, 6, and 8 would result in the extinction of the endangered leatherback sea turtle.

The CHRT evaluated this question based on the information reviewed when addressing the conservation value ratings and activities that may impact PCEs, and determined that exclusion of Areas 3, 4, 5, 6, and 8 is not likely to cause the extinction of leatherbacks. The CHRT also evaluated whether excluding any of these areas would significantly impede the conservation of the species. After examining relevant scientific and commercial information, the CHRT determined that the exclusion of these areas would not significantly impede conservation. For Area 3 the CHRT based this determination in part on the area's limited overall prey abundance, distribution of preferred prey species, and use of the area by leatherbacks. For Areas 6 and 8 the CHRT based this determination on the fact that these areas have relatively few threats and offer only secondary and tertiary foraging habitat, respectively.

Given their medium conservation value ratings, special attention was given to Areas 4 and 5 to ensure that exclusions would not significantly impede conservation. The CHRT found that although these areas received a medium conservation value rating, oil spills are the only identified activity that may affect PCEs. Based on NOAA's records since the late 1950s, there have been very few and relatively small oil spills documented in these two areas. In general, vessels transiting offshore are widely dispersed and less vulnerable to collisions with one another or with man-made or natural structures. In addition, there has been limited or no response to offshore oil spills when they have occurred off the U.S. West Coast. Therefore, the CHRT reasoned that exclusion of these areas would not impede conservation of leatherback sea turtles since there are few activities within Areas 4 and 5 likely to require special management afforded by critical habitat designation.

Based on the best scientific data currently available, we propose to exclude Areas 3, 4, 5, 6, and 8 from critical habitat designation because the benefits of exclusion outweigh the benefits of inclusion and exclusion will not impede conservation or result in the extinction of the species. We recognize that the lack of documented evidence of leatherbacks in some of these areas may be the result of inadequate monitoring and encourage directed surveys in both offshore and nearshore areas to increase our knowledge of leatherback use of the waters of the U.S. West Coast. We will evaluate any new information in the final rule stage and encourage public comment on these proposed exclusions (*see* **ADDRESSES**).

Exclusions Based on Impacts on National Security

The Secretary must consider possible impacts on national security when determining critical habitat. Discussions with the Department of Defense (DOD) indicate that there is overlap between the areas proposed here as critical habitat and areas off southern California and Washington where the U.S. Navy conducts training exercises. The Navy provided letters to NMFS detailing the operations areas that they believe should be excluded from critical habitat due to national security. We will continue working with the DOD to identify impacts to national security and to determine whether any military areas are eligible for exclusion from the proposed critical habitat designation. We encourage the public to see Appendix 1 of the 4(b)(2) report for additional information.

Exclusions for Indian Lands

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. Pursuant to these authorities lands have been retained by Indian Tribes or have been set aside for tribal use. These lands are managed by Indian Tribes in accordance with tribal goals and objectives within the framework of applicable treaties and laws. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting tribal interests. Indian lands are those defined in the Secretarial Order ''American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act'' (June 5, 1997), including: (1) Lands held in trust by the United States for the benefit of any Indian tribe; (2) land held in trust by the United States for any Indian Tribe or individual subject to restrictions by the United States against alienation; (3) fee lands, either within or outside the reservation boundaries, owned by the tribal government; and (4) fee lands within the reservation boundaries owned by individual Indians.

We reviewed maps indicating that several areas along the Washington coast under consideration as critical habitat overlap with Indian lands. These overlapping areas consist of a narrow intertidal zone associated with Indian lands, from the line of mean lower low water to extreme low water, for the following federally recognized tribes (73 FR 18553, April 4, 2008): The Hoh, Makah, Quileute, and Quinault tribes.

To assess the exclusion of Indian lands under section 4(b)(2) of the ESA, we compared the benefits of designation to the benefits of exclusion. The benefits of exclusion include: (1) The furtherance of established national policies, our Federal trust obligations and our deference to the tribes in management of natural resources on their lands; (2) the maintenance of effective long-term working relationships to promote species conservation on an ecosystem-wide basis; (3) the allowance for continued meaningful collaboration and cooperation in scientific work to learn more about the conservation needs of the species on an ecosystem-wide basis; and (4) continued respect for tribal sovereignty over management of natural resources on Indian lands through established tribal natural resource programs. Given that the affected Indian lands represent a very small proportion of the total critical habitat area and, moreover, the high benefits of exclusion, we determined that the benefits of exclusion outweigh the benefits of designation. We also determined that these proposed exclusions will not result in extinction, or impede conservation, of leatherback turtles. Therefore, we propose the exclusion of the identified Indian lands from the proposed critical habitat designation for leatherback turtles. The 4(b)(2) report provides a more detailed description of our assessment and determination for Indian lands.

Critical Habitat Designation

We proposed to designate areas 1, 2, and 7, which includes approximately 70,600 square miles (182,854 square km) of marine habitat in California, Oregon, and Washington and offshore Federal waters. The proposed critical habitat areas contain the physical or biological features essential to the conservation of

the species that may require special management considerations or protection. We propose to exclude from designation areas 3, 4, 5, 6, and 8, for which the benefits of exclusion outweigh the benefits of designation. We conclude that the exclusion of these areas will not result in the extinction of the species, nor impede conservation of the species.

Effects of Critical Habitat Designation

Section 7(a)(2) of the ESA requires Federal agencies to insure that any action authorized, funded, or carried out by the agency (agency action) does not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify designated critical habitat. Federal agencies are also required to confer with us regarding any actions likely to jeopardize a species proposed for listing under the ESA, or likely to destroy or adversely modify proposed critical habitat, pursuant to section 7(a)(4). A conference involves informal discussions in which we may recommend conservation measures to minimize or avoid adverse effects. The discussions and conservation recommendations are to be documented in a conference report provided to the Federal agency. If requested by the Federal agency, a formal conference report may be issued; including a biological opinion prepared according to 50 CFR 402.14. A formal conference report may be adopted as the biological opinion when the species is listed or critical habitat designated, if no significant new information or changes to the action alter the content of the opinion. When a species is listed or critical habitat is designated, Federal agencies must consult with NMFS on any agency actions to be conducted in an area where the species is present and that may affect the species or its critical habitat. During the consultation, we would evaluate the agency action to determine whether the action may adversely affect listed species or critical habitat and issue our findings in a biological opinion or concurrence letter. If we conclude in the biological opinion that the agency action would likely result in the destruction or adverse modification of critical habitat, we would also recommend any reasonable and prudent alternatives to the action. Reasonable and prudent alternatives (defined in 50 CFR 402.02) are alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid the destruction or adverse modification of critical habitat. Regulations (50 CFR 402.16) require Federal agencies that have retained discretionary involvement or control over an action, or where such discretionary involvement or control is authorized by law, to reinitiate consultation on previously reviewed actions in instances where: (1) Critical habitat is subsequently designated; or (2) new information or changes to the action may result in effects to critical habitat not previously considered in the biological opinion. Consequently, some Federal agencies may request reinitiation of a consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat. Activities subject to the ESA section 7 consultation process include activities on Federal lands and activities on private or state lands requiring a permit from a Federal agency (*e.g.* an ESA section 10(a)(1)(B) permit from NMFS) or some other Federal action, including funding (*e.g.* Federal Highway Administration (FHA)). ESA section 7 consultation would not be required for Federal actions that do not affect listed species or critical habitat and for actions on non-federal and private lands that are not federally funded, authorized, or carried out.

Activities That May Be Affected

Section 4(b)(8) of the ESA requires that we describe briefly and evaluate, in any proposed or final regulation to designate critical habitat, those activities that may destroy or adversely modify such habitat or that may be affected by such designation. A wide variety of activities may affect critical habitat and, when carried out, funded, or authorized by a Federal agency, will require an ESA section 7 consultation. These Federal actions and/or regulated activities (detailed in the economic report) include: regulation of point source pollution, particularly NPDES facilities and pesticide application (*e.g.* EPA); oil spills (*e.g.* U.S. Coast Guard (USCG) and EPA have response authorities); power plants (*e.g.* Nuclear Regulatory Commission (NRC) regulates commercial nuclear power); desalination plants (*e.g.* EPA regulates discharge/USCG and U.S. Army Corps of Engineers (USACE) are involved with permitting or approving structures or placing fill that may affect navigation); tidal/wave energy (*e.g.* FERC permitting or licensing); LNG projects (*e.g.* FERC or USCG permitting requirement), and aquaculture (*e.g.* USACE, EPA, or Minerals Management Service permitting requirements). We believe this proposed rule will provide Federal agencies, private entities, and the public with clear notification of critical habitat for leatherback sea turtles and the boundaries of such habitat. This designation will also allow Federal agencies and others to evaluate the potential effects of their activities on critical habitat to determine if ESA section 7 consultation with NMFS is needed. Questions regarding whether specific activities will constitute destruction or adverse modification of critical habitat should be directed to NMFS (*see* **ADDRESSES**).

Information Quality Act and Peer Review

The data and analyses supporting this proposed action have undergone a pre-dissemination review and have been determined to be in compliance with applicable information quality guidelines implementing the Information Quality Act (IQA) (Section 515 of Pub. L. 106–554). In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review pursuant to the IQA. The Bulletin established minimum peer review standards, a transparent process for public disclosure of peer review planning, and opportunities for public participation with regard to certain types of information disseminated by the Federal Government. The peer review requirements of the OMB Bulletin apply to influential or highly influential scientific information disseminated on or after June 16, 2005. To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the scientific information that supports the proposal to designate critical habitat for the leatherback sea turtle and incorporated the peer review comments prior to dissemination of this proposed rulemaking.

Public Comments Solicited

We solicit comments or suggestions from the public, other concerned governments and agencies, the scientific community, industry, non-governmental organizations, or any other interested party concerning the proposed designation and exclusions, the biological report, the economic report, IRFA analysis, and the 4(b)(2) report. We are particularly interested in comments and information in the following areas: (1) Information describing the abundance, distribution, and habitat use of leatherback sea turtles in the eastern Pacific Ocean; (2)

Information on the identification, location, and the quality of physical or biological features and PCEs which may be essential to the conservation of the species, including whether water quality should be a PCE; (3) Information regarding potential benefits of designating any particular area of the proposed critical habitat, including information on the types of Federal actions that may affect the designated critical habitat, the physical and biological features, and/or the PCEs; (4) Information regarding potential impacts of designating any particular area, including the types of Federal actions that may trigger an ESA section 7 consultation and the possible modifications that may be required of those activities; (5) Information regarding the benefits of excluding a particular area of the proposed critical habitat; (6) Current or planned activities in the area proposed as critical habitat and costs of potential modifications to those activities due to critical habitat designation; (7) Any foreseeable economic, national security, or other relevant impact resulting from the proposed designation; (8) Information on water quality, ocean acidification and projected global climate change impacts in the proposed areas and their potential effects on the physical and biological features, and/or the PCEs; (9) Information regarding commercial fishing activities and their potential effects on the physical and biological features, and/or the PCEs; (10) Information on the potential for wind energy projects off the U.S. West Coast, including potential economic costs and effects on the physical and biological features, and/or the PCEs.

You may submit your comments and materials concerning this proposal by any one of several methods (*see* **ADDRESSES**). Copies of the proposed rule and supporting documentation, including the biological report, economic analysis, IRFA analysis, and the 4(b)(2) report, can be found on the NMFS Web site *http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents.* We will consider all comments pertaining to this designation received during the comment period in preparing the final rule. Accordingly, the final decision may differ from this proposal.

Public Hearings

Joint NMFS and USFWS regulations (50 CFR 424.16(c)(3)) state that the Secretary shall promptly hold at least one public hearing if any person requests one within 45 days of publication of a proposed regulation to list a species or to designate critical habitat. Requests for public hearings must be made in writing (*see* **ADDRESSES**) by February 19, 2010. If a public hearing is requested, a notice detailing the specific hearing location and time will be published in the **Federal Register** at least 15 days before the hearing is to be held. Information on the specific hearing locations and times will be posted on our Web site at *http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents.* Such hearings provide the opportunity for interested individuals and parties to give comments, exchange information and opinions, and engage in a constructive dialogue concerning this proposed rule. We encourage the public's participation and involvement in ESA matters.

Classification

Regulatory Planning and Review

The Office of Management and Budget (OMB) has determined that this proposed rule is significant under Executive Order 12866. An economic report and 4(b)(2) report have been prepared to support the exclusion process under section 4(b)(2) of the ESA.

National Environmental Policy Act

We have determined that an environmental analysis as provided for under the National Environmental Policy Act of 1969 for critical habitat designations made pursuant to the ESA is not required. See *Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. Denied, 116 S.Ct 698 (1996).

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency publishes a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis describing the effects of the rule on small entities (*i.e.,* small businesses, small organizations, and small government jurisdictions). We have prepared an initial regulatory flexibility analysis (IRFA). This document is available upon request (*see* **ADDRESSES**), via our Web site *http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents,* or via the Federal eRulemaking Web site at *http://www.regulations.gov.* The results of the IRFA are summarized below. A description of the action, why it is being considered, and the objectives of and legal basis for this action are contained in the preamble of this proposed rule.

At the present time, little information exists regarding the cost structure and operational procedures and strategies in the sectors that may be directly affected by the potential critical habitat designation. In addition, a great deal of uncertainty exists with regard to how potentially regulated entities will attempt to avoid the destruction or adverse modification of critical habitat. This is because relatively little data exist on the effects to leatherback sea turtles and their prey from aspects of the activities identified (*i.e.,* water quality, water temperature, etc.). With these limitations in mind, we considered which of the potential economic impacts we analyzed might affect small entities. These estimates should not be considered exact estimates of the impacts of potential critical habitat to individual businesses.

The impacts to small businesses were assessed for the following six activities: NPDES activities; agriculture; oil spills; power plants; tidal/wave energy projects; and LNG projects. The impacts on small entities were not assessed for desalination plants and aquaculture facilities due to lack of information.

Small entities were defined by the Small Business Administration size standards for each activity type. The majority (> 97 percent) of entities affected within each specific area would be considered a small entity. A total of 3,458 small businesses involved in the activities listed above would most likely be affected by the proposed critical habitat designation. The estimated annualized costs associated with ESA section 7 consultations incurred per small entity range from $0 to $281,800, with the largest annualized impacts estimated for entities involved in agricultural pesticide application ($5,500 to $281,800) and tidal/wave energy projects ($11,300 to $236,600). These amounts are most likely overestimates, as they are based on assumptions that such actions may not be able to proceed if a consultation found that the project adversely modified critical habitat. The total estimated annualized cost of section 7 consultation incurred by small entities is estimated to be about $930,000. The estimated economic impacts on small entities vary depending on the activity type and location.

As required by the RFA (as amended by the SBREFA), we considered various alternatives to the proposed critical habitat designation for the leatherback. We considered and rejected the alternative of not designating critical habitat for the leatherback because such

an approach does not meet the legal requirements of the ESA. Because the benefits of exclusion for particular areas appear to outweigh the benefits of designation, NMFS is proposing to exclude those areas from the designation; however, NMFS is seeking comments on the alternative of designating all potential critical habitat areas (*i.e.,* no areas excluded), and will evaluate comments received.

We have considered and evaluated each of these alternatives in the context of the ESA section 4(b)(2) process of weighing benefits of exclusion against benefits of designation, and we believe that the current proposal provides an appropriate balance between conservation needs and the associated economic and other relevant impacts. It is estimated that small entities will avoid $578,300 in compliance costs, due to the proposed exclusions made in this designation. We seek information regarding the information in the economic analysis and the impacts to small entities (*see* **ADDRESSES**).

Coastal Zone Management Act

Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972 requires that all Federal activities that affect the land or water use or natural resource of the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. We have determined that this proposed designation of critical habitat is consistent to the maximum extent practicable with the enforceable policies of approved Coastal Zone Management Programs of California, Oregon, and Washington. The determination has been submitted for review by the responsible agencies in the aforementioned states.

Federalism

Executive Order 13132 requires agencies to take into account any Federalism impacts of regulations under development. It includes specific consultation directives for situations where a regulation will preempt state law, or impose substantial direct compliance costs on state and local governments (unless required by statute). We have determined that the proposed rule to designate critical habitat for the leatherback sea turtle under the ESA is a policy that does not have federalism implications. Consistent with the requirements of Executive Order 13132, recognizing the intent of the Administration and Congress to provide continuing and meaningful dialogue on issues of mutual state and Federal interest, and in keeping with Department of Commerce policies, the Assistant Secretary for Legislative and Intergovernmental Affairs will provide notice of the proposed action and request comments from the appropriate officials in states where leatherback sea turtles occur.

Paperwork Reduction Act

This proposed rule does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act, we make the following findings: (a) The designation of critical habitat does not impose an ''enforceable duty'' on state, local, tribal governments or the private sector and therefore does not qualify as a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an ''enforceable duty'' upon non-federal governments, or the private sector and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' Under the ESA, the only regulatory effect is that Federal agencies must ensure that their actions do not jeopardize the continued existence of the species or destroy or adversely modify critical habitat under section 7. While non-federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid jeopardy and the destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply. (b) We do not believe that this proposed rule would significantly or uniquely affect small governments because it is not likely to produce a Federal mandate of $100 million or greater in any year; that is, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act. In addition, the designation of critical habitat imposes no obligations on local, state or tribal governments. Therefore, a Small Government Agency Plan is not required.

Takings

Under Executive Order 12630, Federal agencies must consider the effects of their actions on constitutionally protected private property rights and avoid unnecessary takings of property. A taking of property includes actions that result in physical invasion or occupancy of private property, and regulations imposed on private property that substantially affect its value or use. In accordance with Executive Order 12630, the proposed critical habitat designation does not pose significant takings implications. A takings implication assessment is not required. This proposed designation affects only Federal agency actions (*i.e.* those actions authorized, funded, or carried out by Federal agencies). Therefore, the critical habitat designation does not affect landowner actions that do not require Federal funding or permits. This designation would not increase or decrease the current restrictions on private property concerning take of leatherback sea turtles, nor do we expect the final critical habitat designation to impose substantial additional burdens on land use or substantially affect property values. Additionally, the final critical habitat designation does not preclude the development of Habitat Conservation Plans and issuance of incidental take permits for non-Federal actions. Owners of areas included within the proposed critical habitat designation would continue to have the opportunity to use their property in ways consistent with the survival of listed leatherback sea turtles.

Government to Government Relationships With Tribes

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting tribal interests. If NMFS issues a regulation with tribal implications (defined as having a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal

Government and Indian tribes) we must consult with those governments or the Federal Government must provide funds necessary to pay direct compliance costs incurred by tribal governments. The proposed critical habitat designation does not have tribal implications. The proposed critical habitat designation excludes tribal lands (*see* Exclusions for Indian Lands section above) and does not affect tribal trust resources or the exercise of tribal rights.

Energy Effects

Executive Order 13211 requires agencies to prepare a Statement of Energy Effects when undertaking a ''significant energy action.'' According to Executive Order 13211, ''significant energy action'' means any action by an agency that is expected to lead to the promulgation of a final rule or regulation that is a significant regulatory action under Executive Order 12866 and is likely to have a significant adverse effect on the supply, distribution, or use of energy. We have considered the potential impacts of this action on the supply, distribution, or use of energy (*see* economic report). Activities associated with the supply, distribution, or use of energy that may be affected by the critical habitat designation include the operation of: (1) Power plants; (2) proposed and potential tidal, wave and wind energy projects; (3) LNG projects.

The economic analysis identified seven power plants that may be affected by the potential critical habitat designation. Future management and required project modifications for leatherback critical habitat related to power plants under ESA Section 7 consultation include: Cooling of thermal effluent before release to the environment; treatment of any contaminated waste materials; and modifications associated with permits issued under NPDES. All of the power plants are located on the California coast and are subject to existing regulations through the NRC and California Energy Commission.

The economic analysis identified twelve tidal/wave energy projects that may be affected by the potential critical habitat designation. Eight of these energy projects have received preliminary permits from the FERC and four of the projects have pending applications. Given the necessary timeframes for project construction, it may be reasonable to assume that this set of projects will incur project modification costs related to leatherback critical habitat within the next 20 years. However, it should also be noted that other new permit applications are likely to be filed in the future, and that rate of application may be increasing. We seek comment on the likely number of projects within the timeframe of this analysis (*see* **ADDRESSES**). Relevant information received will inform our final analysis of energy effects.

Given that these projects are in their preliminary stages, it is not clear what effects the projects will have on habitats and natural resources, nor what effects a critical habitat designation would have on these projects. The exact nature of habitat impacts is difficult to predict; however, possible impacts to features of the potential leatherback critical habitat include obstruction of passage or migration and disturbance to prey species during their benthic, polyp stage. It is unknown whether the passage PCE could also be affected by the electromagnetic fields generated by these types of projects.

The economic analysis identified seven LNG projects that may be affected by potential leatherback critical habitat. FERC regulates LNG projects. There are three proposed LNG projects and four potential LNG projects within the analyzed areas. Like the alternative energy projects, there is a high degree of uncertainty regarding whether these proposed projects will be implemented. As a result, it is unclear at this time what effects a critical habitat designation would have on these proposed LNG projects; however, using available information, project modifications may include: biological monitoring; spatial restrictions on project installation; and specific measures to respond to catastrophes. We seek information on the nature and extent of likely modifications from LNG projects resulting from the designation of leatherback critical habitat (*see* **ADDRESSES**). Relevant information received will inform our final analysis.

We have determined that the energy effects of this proposed rule are unlikely to exceed the energy impact thresholds identified in Executive Order 13211 and that this proposed rulemaking is, therefore, not a significant energy action (*see* economic report).

References Cited

A complete list of all references cited in this rule making can be found on our Web site at *http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents,* and is available upon request from the NMFS (*see* **ADDRESSES**).

List of Subjects in 50 CFR Part 226

Endangered and threatened species.

Dated: December 30, 2009.

James W. Balsiger,

Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.

For the reasons set out in the preamble, we propose to amend 50 CFR part 226 to read as follows:

PART 226—DESIGNATED CRITICAL HABITAT

1. The authority citation of part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

2. Revise § 226.207, to read as follows:

§ 226.207 Critical habitat for leatherback turtles (Dermochelys coriacea).

Critical habitat is designated for leatherback turtles as described in this section. The textual descriptions of critical habitat in this section are the definitive source for determining the critical habitat boundaries. The overview maps are provided for general guidance purposes only and not as a definitive source for determining critical habitat boundaries.

(a) The waters adjacent to Sandy Point, St. Croix, U.S. Virgin Islands, up to and inclusive of the waters from the hundred fathom curve shoreward to the level of mean high tide with boundaries at 17°42′12″ N. and 64°50′00″ W.

(b) All U.S. coastal marine waters within the areas in paragraphs (b)(1) and (2) of this section and as described in paragraphs (b)(3) and (4) of this section and depicted in paragraph (b)(5) of this section:

(1) California.

(i) The area bounded by Point Sur (36°18′22″ N./121°54′9″ W.) then north along the shoreline following the line of mean lower low water to Point Arena, California (38°57′14″ N./123°44′26″ W.) then west to 38°57′14″ N./123°56′44″ W. then south along the 200 meter isobath to 36°18′22″ N./122°4′13″ W. then east to the point of origin at Point Sur.

(ii) Nearshore area from Point Arena, California, to Point Vicente, California (35°44′30″ N./118°24′44″ W.), exclusive of Area 1 (see above) and offshore to a line connecting 38°57′14″ N./126°22′55″ W. and 33°44′30″ N./121°53′41″ W.

(2) Oregon/Washington. The area bounded by Winchester Bay, Oregon (43°39′58″ N./124°13′06″ W.) north along the shoreline following the line of mean lower low water to Cape Flattery, Washington (48°23′10″ N./124°43′32″ W.) then north to the U.S./Canada boundary at 48°29′38″ N./124°43′32″ W. then west and south along the line of the U.S. Exclusive Economic Zone to 47°57′38″ N./126°22′54″ W. then south along a line approximating the 2,000

meter isobath that passes through points at 47°39′55″ N./126°13′28″ W., 45°20′16″ N./125°21′ W. to 43°40′8″ N./125°17′ W. then east to the point of origin at Winchester Bay.

(3) Critical habitat extends to a water depth of 80 meters from the ocean surface and is delineated along the shoreline at the line of mean lower low water, except in the case of estuaries and bays where COLREGS lines (defined at 33 CFR part 80) shall be used as the shoreward boundary of critical habitat.

(4) Primary Constituent Elements. The primary constituent elements essential for conservation of leatherback turtles are:

(i) Occurrence of prey species, primarily scyphomedusae of the order Semaeostomeae (*Chrysaora, Aurelia, Phacellophora,* and *Cyanea*) of sufficient condition, distribution, diversity, and abundance to support individual as well as population growth, reproduction, and development.

(ii) Migratory pathway conditions to allow for safe and timely passage and access to/from/within high use foraging areas.

(5) A map of proposed critical habitat for leatherback sea turtles.

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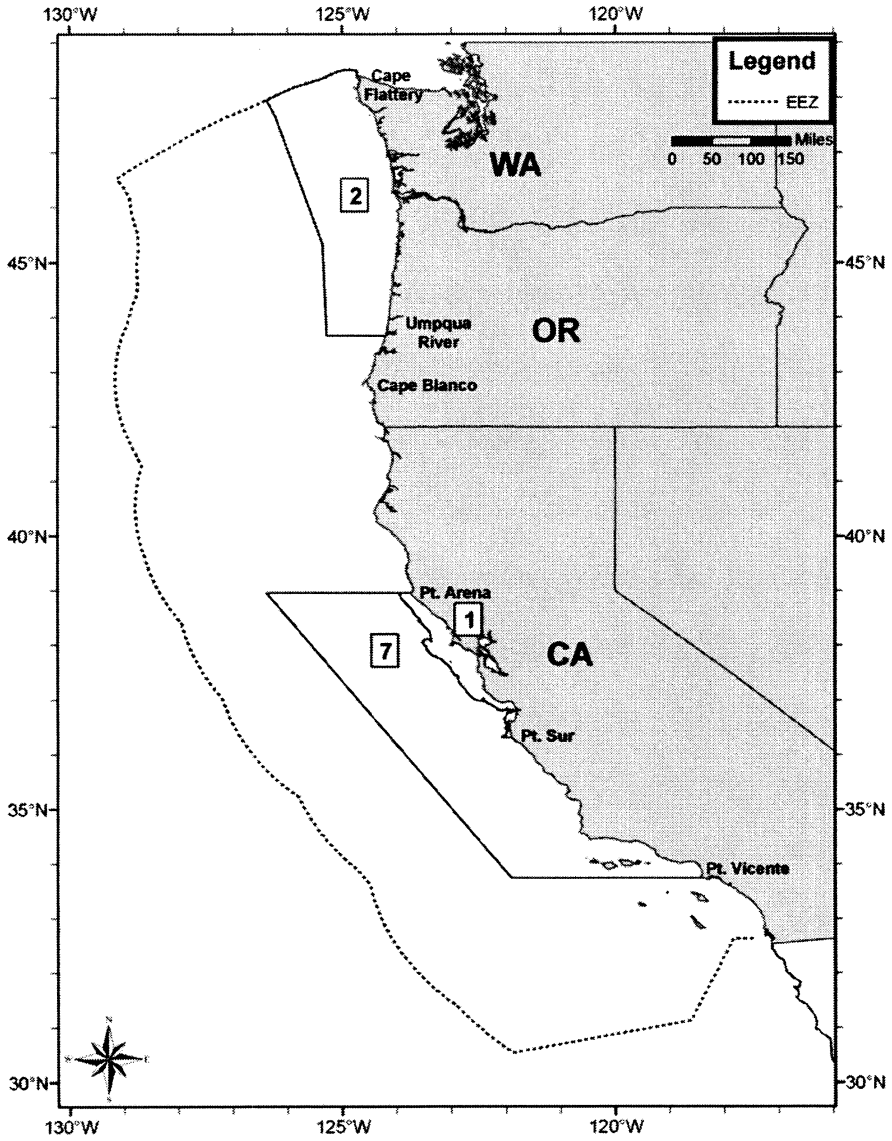

[FR Doc. E9–31310 Filed 12–31–09; 11:15 am]

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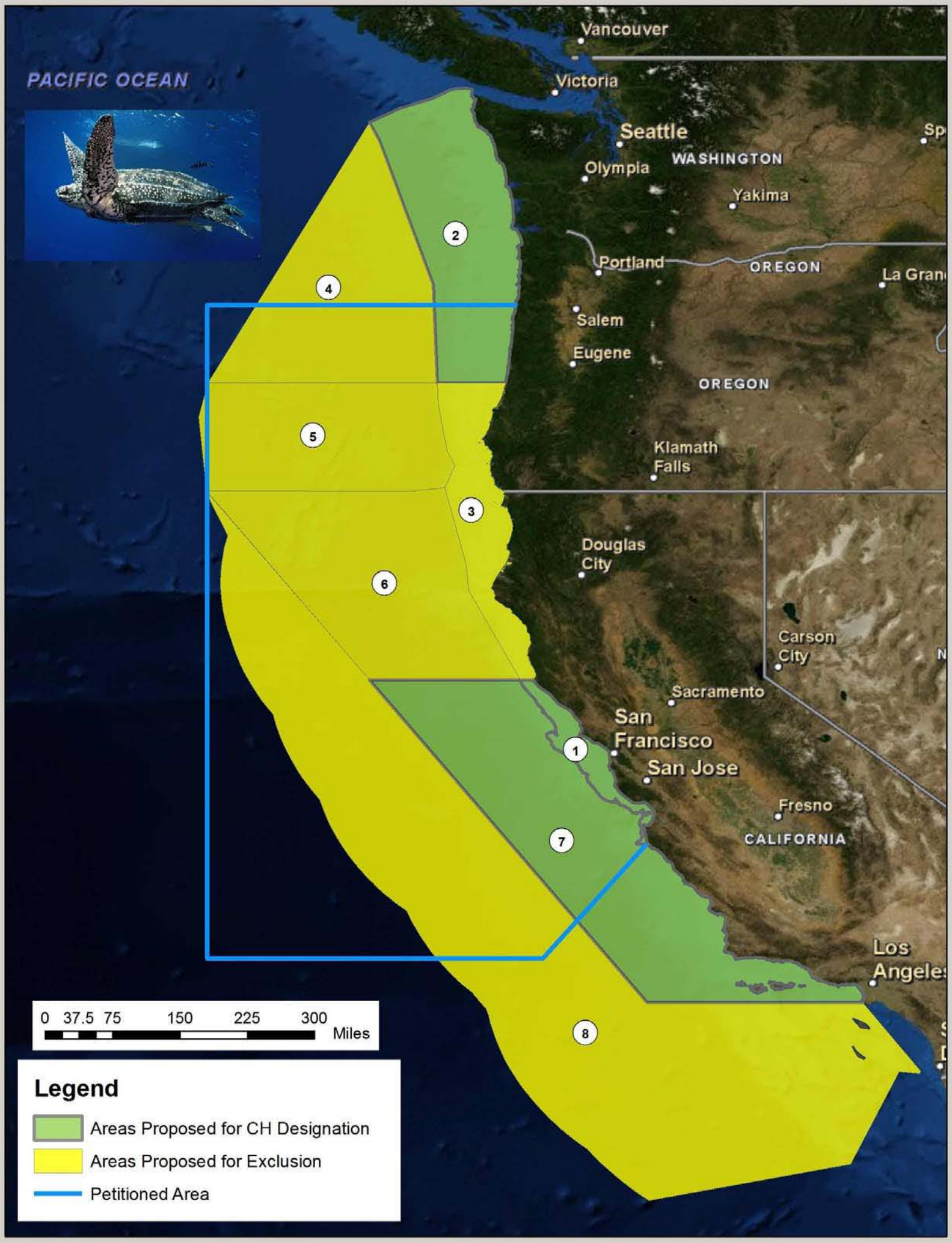
Maps of Proposed and Excluded Leatherback Sea Turtle Critical Habitat Designations.

(Attached)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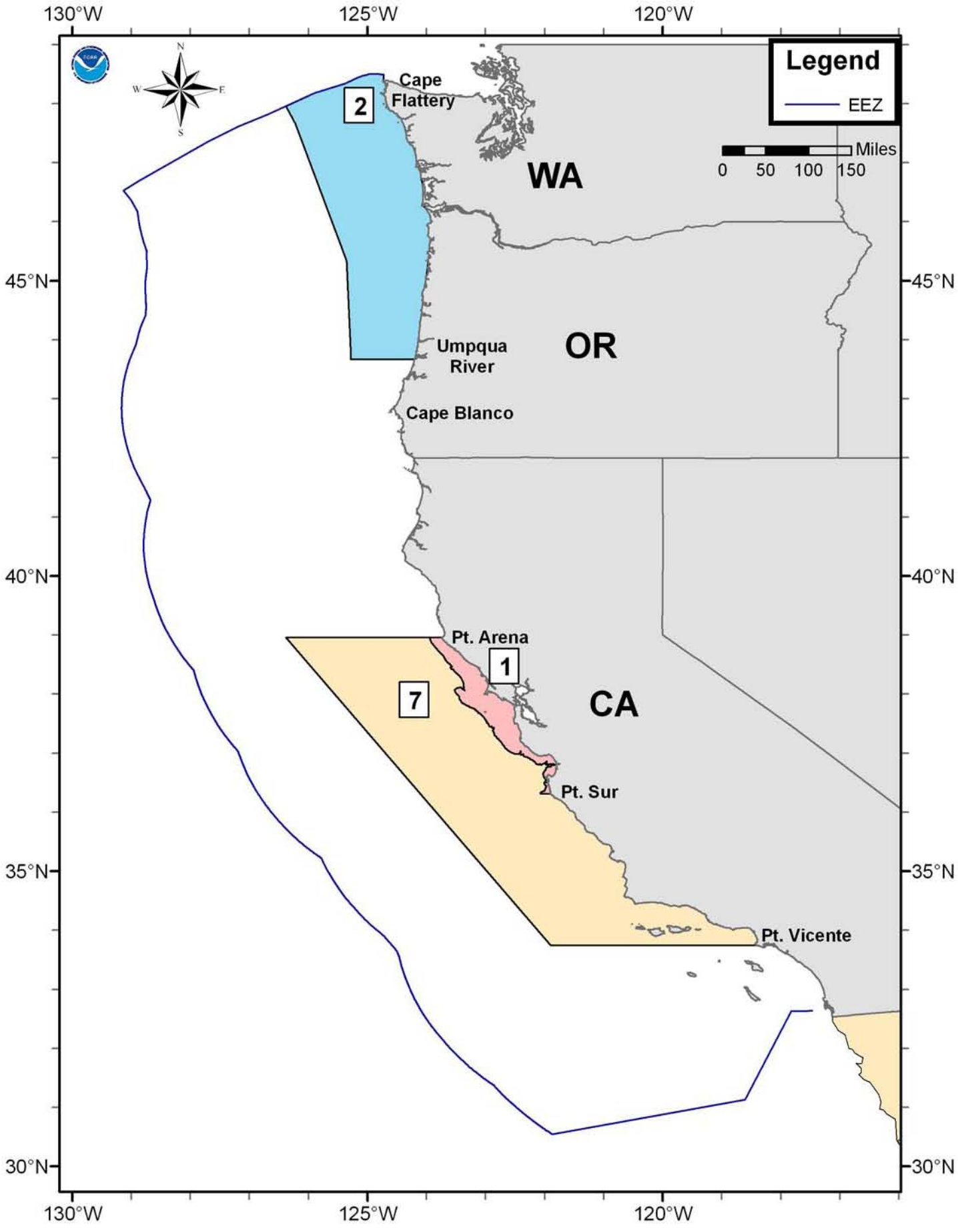
Petitioned Area

Leatherback Sea Turtle PROPOSED Critical Habitat



Agenda Item G.4.b
Supplemental HMSAS Report
April 2010

HIGHLY MIGRATORY SPECIES ADVISORY SUBPANEL REPORT ON CRITIAL HABITAT DESIGNATION FOR LEATHERBACK TURTLES

The HMSAS does not endorse the establishment of critical habitat designation for leatherback turtles. Fishing activity and vessel passage should not be restricted in any designated area.

PFMC
04/11/10

NOAA-NMFS presentation to the PFMC and committees regarding proposed rule to revise the critical habitat designation for the endangered leatherback sea turtle

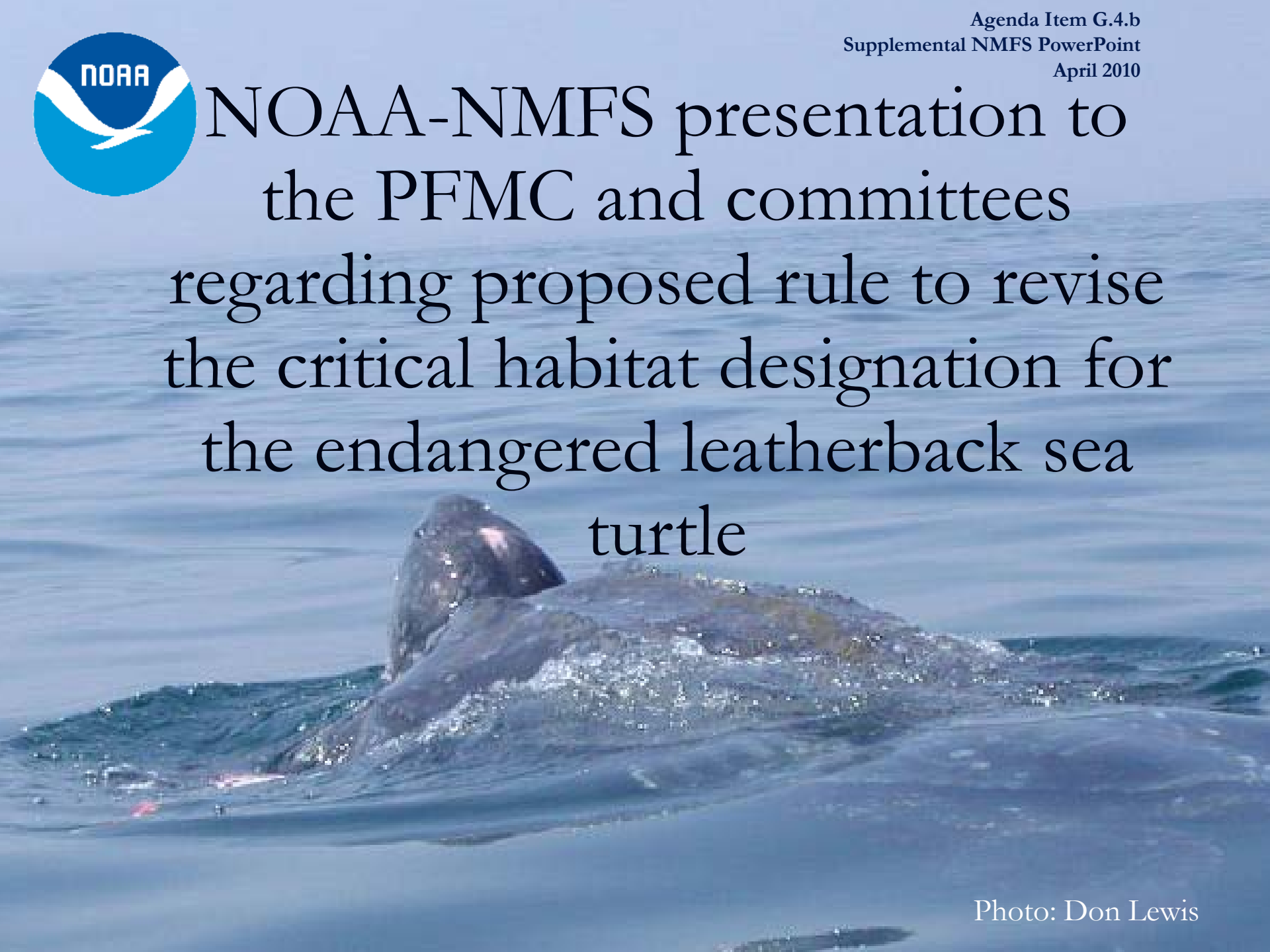


Photo: Don Lewis

- What is Critical Habitat?
- Designation Process and Proposed Rule
- Next Steps

For more information and to submit public comment see:
http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents

What is Critical Habitat?

- Not a refuge or a marine sanctuary.
- A specific area within the geographical range of the species that contains physical or biological features essential to the conservation of the species.
- The ESA requires designation based on the best scientific information available, after considering the impacts of designation, including economic impacts.
- The primary benefit – ESA Section 7 - prohibits the adverse modification or destruction of critical habitat by Federal agency actions.

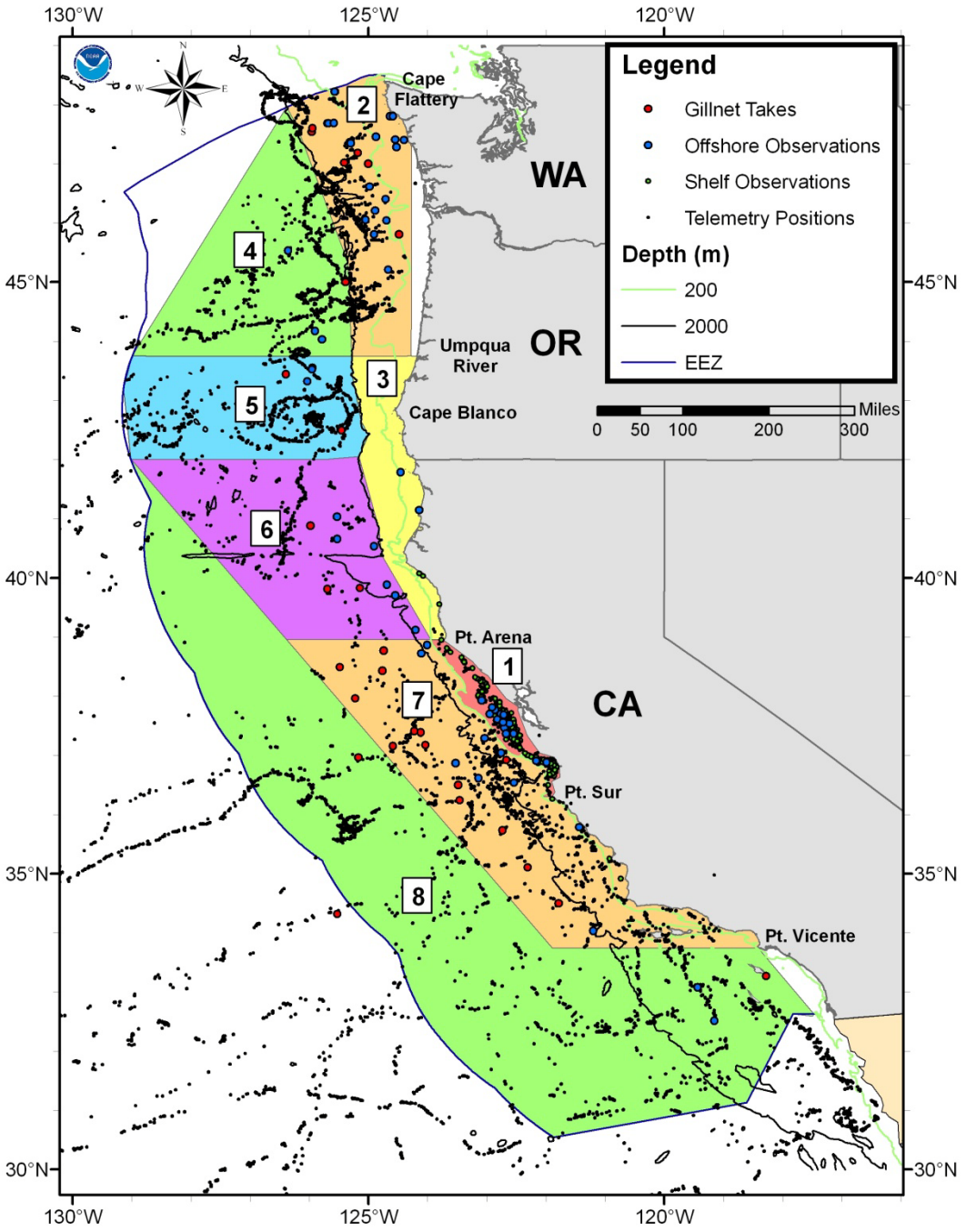
Petition to Revise the Designation

- NMFS was petitioned in Oct. 2007 to revise the existing critical habitat designation to include the Leatherback Conservation Area (aka drift gillnet seasonal area closure).
- In 1979 NMFS designated leatherback critical habitat in St. Croix, U.S. Virgin Islands.
- On Dec 28, 2007 NMFS published a 90-day finding.
- Critical Habitat Review Team
- On Jan 5, 2010 NMFS published the Propose Rule.

What Does NMFS Consider?

- Geographic range of species within U.S. EEZ.
- Physical/biological features essential to leatherback conservation, primary constituent elements (PCE's)
- PCE's are prey and passage
- Identify specific areas that contain the essential features.
- What Federal activities occur in each specific area that may require special management.

Map of the Biological Data Considered detailed in Biological Report



Economic Analysis

- Federal activities that may alter prey abundance, prey quality, or free passage of turtles.
  - pollution from point sources
  - runoff from agricultural pesticide use;
  - oil spills;
  - power plants;
  - aquaculture;
  - desalination plants;
  - tidal energy or wave energy projects; and
  - liquid natural gas (LNG) projects.

Commercial Fisheries

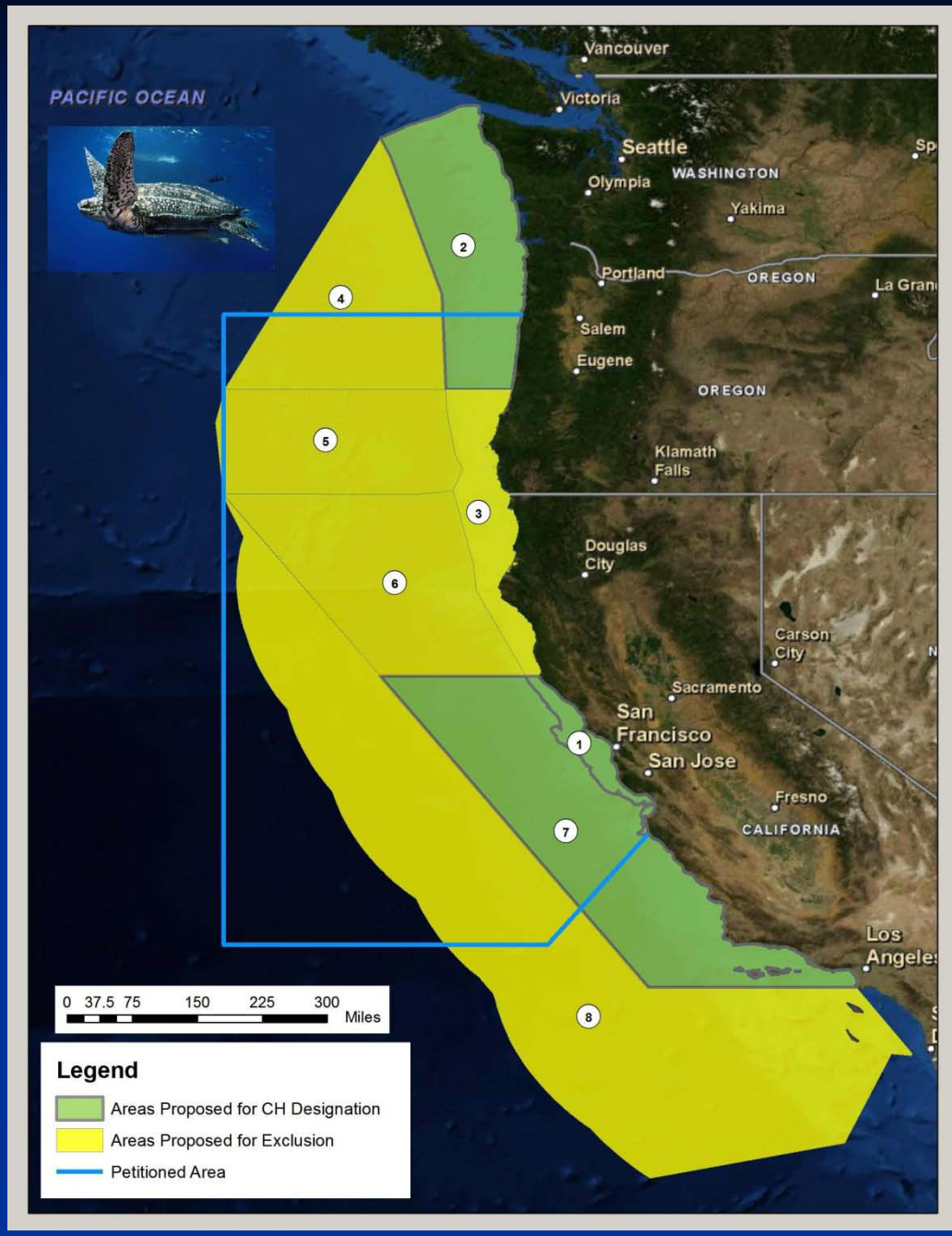
- NMFS considered impacts from commercial fisheries, but ultimately determined that commercial fisheries were not likely to impact the **habitat**.
- Interactions between leatherbacks and fisheries are direct interactions and indirect effects. This is better evaluated through the jeopardy standard of ESA Section 7.
- Prey PCE – No impacts expected
- Passage PCE – Temporary impediments, not long term barriers to passage

ESA Section 4(b)(2)

- Weigh the benefits of exclusion v. benefits of designation
- Potential Exclusions:
  - Economic (economic costs outweigh the conservation benefit)
  - National Security
  - Other impacts (Tribal lands)

Proposed Designation

- NMFS proposes to designate 3 specific areas (green).
- Total designation is approximately 70,600 sq miles
- Geographic descriptions:
  - Area 1 and 7 - CA coast from Point Arena to Point Vicente
  - Area 2 - Cape Flattery, WA to Umpqua River, OR



What Happens Next?

- Public Comment Period closes on April 23rd.
- NMFS will review all public comments and make a final determination.
- Final Rule is expected to publish by the end of 2010.
- If critical habitat is designated, Federal agencies will consult with NMFS on projects that may affect critical habitat.

Comment Period Closes April 23, 2010

Submit Comments to:

David Cottingham, Chief, Marine Mammal and Sea Turtle Conservation Division, NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD, 20910.

RIN 0648-AX06

Electronic Submissions: http://www.regulations.gov

For Additional Information:

http://www.nmfs.noaa.gov/pr/species/turtles/leatherback.htm#documents

Critical Habitat Review Team

- Scott Benson, SWC
- Steve Bograd, SWC
- Therese Conant, OPR
- David Cottingham, OPR
- Peter Dutton, SWC
- Christina Fahy, SWR
- Katrina Hodges, SWR
- Sean Ledwin, OPR
- Lisa Manning, OPR
- Sara McNulty, OPR
- Elizabeth Petras, SWR
- Corinne Pinkerton, SWR
- Steve Stone, NWR

Agenda Item G.4.c
Supplemental HC Report
April 2010

HABITAT COMMITTEE REPORT ON CRITICAL HABITAT DESIGNATION FOR LEATHERBACK SEA TURTLES

The Habitat Committee (HC) heard a presentation on the proposed rule to designate critical habitat in the U.S. West Coast Exclusive Economic Zone (EEZ) for the endangered leatherback sea turtle. Elizabeth Petras (NMFS, Southwest Region) and Scott Benson (NMFS, Southwest Fisheries Science Center), both members of the Critical Habitat Review Team, presented.

NMFS considered commercial fishing as an activity that could threaten the identified Primary Constituent Elements, but determined that fishery impacts were best addressed through ESA Section 7 consultations on incidental takes. NMFS is seeking public comment on this decision, and in particular, on fishing vessels as a potential impediment to sea turtles' migratory pathways. The HC recommends the Council support the determination in the proposed rule that vessels and fishing gear not be considered as a potential threat to critical habitat.

Discussion among the HC brought up several other concerns. First, based on the information presented and the ESA 4(b)(2) report "Designation of Critical Habitat for the Leatherback Sea Turtle," the HC felt the Council should seek clarification on designation of critical habitat in tribal usual and accustomed (UA) fishing areas, and the basis for not excluding UA from the critical habitat designation. Second, there was concern that effects associated with climate change and inter-annual oceanographic changes were not adequately addressed; for instance, Area 3 can experience warmer water during El Nino events which could affect prey availability and Leatherback migration pathways. The HC recommends that future developments in ecosystem-based management be applied to critical habitat designations. Finally, some HC members noted uncertainty as to the affects of this designation on future community activities.

PFMC
04/10/10

Agenda Item G.4.c
Supplemental HMSMT Report
April 2010

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT ON CRITICAL HABITAT DESIGNATION FOR LEATHERBACK TURTLES

The Highly Migratory Species Management Team (HMSMT) heard presentations by National Marine Fisheries Service (NMFS) staff on the proposed Critical Habitat Designation (CHD) for leatherback sea turtles both at their February interim work session and on April 10, 2010. The HMSMT offers the following guidance to the Council on this issue.

The HMSMT is concerned regarding the large extent of the 70,000 square mile area proposed as leatherback CHD within the west coast Exclusive Economic Zone (EEZ). The HMSMT feels that insufficient information has been provided to justify consideration of this entire area as CHD. Applying a definition of CHD along the Pacific coast based on prey and passage seems inconsistent with decision making in the Atlantic and Gulf of Mexico where leatherback critical habitat was designated to protect nesting beaches.

The HMSMT concurs that only permanent structures should be considered if evaluating potential barriers to passage. Fishing operations along the U.S. West Coast do not fall under the category of permanent structures, and thus the HMSMT concurs with the decision to exclude commercial fishing from the scope of CHD. The HMSMT recognizes the need for compliance with conservation measures under the Endangered Species Act (ESA). The HMSMT notes that conservation measures to control leatherback turtle take in commercial fisheries are already in effect under existing ESA Section 7 regulations. The definition of take under Section 7 is sufficiently broad to include barriers to passage within its scope.

The HMSMT notes that very little information was offered in the proposed rule on biomass density of prey species, such as jellyfish consumed by leatherback turtles, yet one of the crucial elements of the CHD as defined is accessibility to prey. Specifically, not enough information was provided to document areas where prey density rose to a level that may warrant leatherback CHD designation. The HMSMT also notes the lack of a clear rationale for selecting the number of areas to consider for CHD and their specific boundaries.

The HMSMT questions how thresholds were assigned to rank different areas under consideration for CHD. It is difficult to understand how values were derived for low, medium, or high risk. Likewise, no rationale for determining the economic benefit of CHD is included in the NMFS economic report on CHD.

In the event that NMFS adds commercial fishing to the scope of Critical Habitat Designation in the future, the HMSMT offers to provide further guidance to the Council on this issue.

PFMC
04/11/10

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON CRITICAL HABITAT DESIGNATION FOR LEATHERBACK TURTLES

The National Marine Fisheries Service (NMFS) has a proposed rule to revise the Critical Habitat Designation for leatherback sea turtles, in response to a petition to add areas of the west coast Exclusive Economic Zone (EEZ). Ms. Elizabeth Petras of the Southwest Regional Office presented a summary of the proposal and Dr. Scott Benson of the Southwest Fisheries Science Center was available to answer questions.

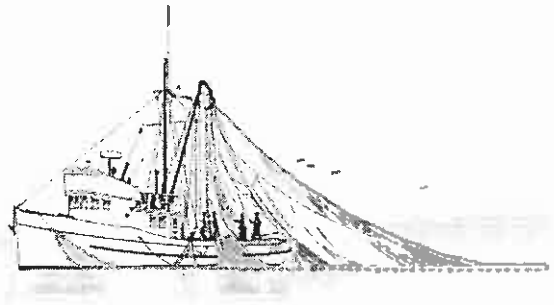
Section 7 of the Endangered Species Act prohibits adverse modification or destruction of the "primary constituent elements" (PCEs) of the habitat, which were identified by NMFS as "passage" (i.e., migration behavior) and the primary prey of leatherbacks, the brown sea nettle jellyfish. The Scientific and Statistical Committee (SSC) agrees with the proposed rule that direct or indirect effects of fisheries on these PCEs are not an immediate concern, based on available data. Incidental catch and gear entanglement are designated as "takes" and evaluated under a separate Section 7 impact assessment, so fisheries were not included as a threat to habitat. However, Section 7 consultation is required for any federally permitted actions that may jeopardize a listed species directly or indirectly, even if Critical Habitat has not been designated. The SSC expects little additional impact of the proposed rule on Pacific fisheries.

The SSC noted that the methods used to identify habitat area boundaries and assignment of ratings for conservation value (low, medium, and high) were largely based on expert opinion and were not well documented for each area. Conservation value was based on a relative scale, with areas of high turtle sightings and prey rated "high" and areas with few or no observations rated "low", but within the "medium" rating, some areas were further stratified based on additional criteria that were not documented (see the table footnote on page 20 of *Revisions of Critical Habitat for Leatherback Sea Turtles – Biological Report, Nov. 2009).*

The SSC received the lengthy economic report too late to provide a thorough review. Nevertheless, the SSC is concerned by the lack of explanation or justification for assignment of "very low" to "high" ratings of potential cost across economic scales. The economic costs in the report are given the ratings in Table 3 of the Federal Register on page 329. The procedure used to assign these ratings is important because those assignments are used to evaluate the tradeoffs between economic costs and conservation ratings at each level. The analysis that compares these ratings (see Table 4 in the Federal Register, page 329) gives a false impression of a strong analytical framework for comparing the economic and conservation ratings, which is not supported in the documentation. A more qualitative discussion that compares the actual median annualized cost to the conservation value rating would provide a more clear and substantiated analysis.

Although the proposed rule does not appear to have immediate impacts on fisheries, it will set a precedent for additional Critical Habitat Designation for leatherback turtles and possibly other protected species. The public comment period for the rule is now open, and the Council may want to use that opportunity to comment on documentation and methodology concerns that can be addressed in the final ruling.

PFMC
04/11/2010



CALIFORNIA WETFISH PRODUCERS ASSOCIATION

Representing California's Historic Fishery

VISIT WWW.CALIFORNIAWETFISH.ORG FOR INFORMATION

Mr. Dave Ortmann, Chair &
Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place #200
Portland OR 97220-1384

RE: Agenda Item G.4.d: Critical Habitat Designation for Leatherback Turtles

Dear Chairman Ortmann, Dr. McIsaac and Council members,

The California Wetfish Producers Association (CWPA) represents the majority of active wetfish fishermen and processors from both Monterey and southern California. We appreciate this opportunity to address the Council on the Proposed Rule proposing to revise critical habitat designation for leatherback turtles.

Among our chief concerns with the Proposed Rule, proposing to revise the critical habitat designations for leatherback sea turtles, is the continuing lack of integration between agencies implementing various ocean protection policies. This failure results in costly overlap and duplicative restrictions on fisheries, whether immediate or portended for the future. This proposed rule is another case in point: we learned that the Office of Protected Species developed the proposed rule with virtually no input from NOAA's Sustainable Fisheries Division. In addition, there was no consideration of state-implemented species and habitat protections, specifically California's Marine Life Protection Act, which has closed or proposed for closure in MPAs most high biodiversity areas along the California coast, which also are identified as leatherback foraging areas.

Resulting from these omissions, a far wider swath of ocean is proposed as 'critical habitat' than is needed to safeguard areas used by leatherback turtles. Although this rule states that fisheries are exempted, a finding with which we strongly agree, the law of unintended consequences is still alive and well. Any declaration of 'critical habitat' will open the door for further restrictions in the future. Our local fishing communities and fisheries are very sensitive to such designations: the immediate example is designation of the Monterey Bay National Marine Sanctuary, which fishermen supported decades ago under the promise that the Sanctuary, which was established largely to prevent oil development in sensitive habitat, would not regulate fisheries. Now, however, the fishermen's promise is in jeopardy.

Following are bulleted points that we intend to make in more detail in our public comments.
Thank you very much for your interest.

Best regards,

Diane Pleschner-Steele

Diane Pleschner-Steele
Executive Director

PO BOX 1951 BUELLTON, CA 93427 TELEPHONE 805-693-5430 FAX 805-686-9312
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PROPOSED LEATHERBACK SEA TURTLE CRITICAL HABITAT
ISSUES SUMMARY

· NMFS has properly determined that commercial fisheries don't impact the proposed critical habitat.

· NMFS has identified two primary constituent elements of the proposed critical habitat:
(1) the occurrence of prey species, *i.e.*, various species of jellyfish, and
(2) migratory pathways.

· The fisheries have no impact on jellyfish aggregations. No fishery targets jellyfish, and no such fishery is planned. Further, there is negligible by-catch of jellyfish for all fisheries in California. In addition, operation of the vessels does not result in any appreciable pollution. Finally, the fisheries do not affect the oceanographic conditions that result in a highly productive and rich foraging ground.

· The fisheries don't impact migratory pathways. There is no documented evidence of impact to the species from fisheries such as roundhaul and trap. More important, since the Pacific Leatherback Conservation Area (PLCA) was implemented in 2001, there has not been a single documented take of leatherback sea turtles in the drift gillnet fishery.

· The proposed critical habitat is larger than is needed.

· Coastal upwellings and corresponding retention areas, which contain dense prey aggregations upon which leatherback sea turtles depend for sustenance, are generally located close to shore, near points and headlands stretching from Cape Flattery, Washington, to Point Sur, California. There appears to be no need to extend critical habitat far out to sea to protect these prey aggregations.

· There appears to be little justification for extending critical habitat south of Point Sur. 72% of total abundance observed, on average, is in Monterey Bay and the Gulf of the Farallons.

· The proposed critical habitat encompasses areas that do not require special management considerations or protection.

· Monterey Bay and the Gulf of the Farallons are two important sites for leatherback foraging in Central California, but these areas are already encompassed in national marine sanctuaries that restrict development activities.

· The State of California has implemented marine protected areas (MPAs) in precisely the upwelling and retention areas where leatherback sea turtles are primarily found. 53 such areas have been designated from Point Arena to Point Conception. These State MPAs are designed to ensure that impacts are comprehensively controlled and all species and habitats are fully protected.

It is difficult to understand why additional protection of these areas as critical habitat under the ESA is warranted.

- Leatherback abundance off CA exhibited positive relationship with average annual Northern Oscillation Index [NOI]
    - Positive NOI values correspond with favorable upwelling conditions leading to increased zooplankton [Schwing et al 2002] and development of large aggregations of gelatinous zooplankton [Graham 1994], known to be primary prey of leatherbacks [Eisenberg and Frasier, 1983]
    - Variability in expression of physical and trophic processes leads to Interannual and seasonal variability in observed leatherback abundance. Benson et al hypothesize that leatherback densities = greatest during periods of significant upwelling and relaxation events.
- Few turtles were observed south of Pt. Sur [where there are limited retention zones].

* * *

Proposed Critical Habitat is excessive – Proposed Rule does not consider existing protections implemented under other State / Federal agencies, e.g. Marine Life Protection Act
("MLPA"; Stats. 1999, ch. 1015)

The State of California implemented marine protected areas [MPAs] in the upwelling and retention areas where Leatherback turtles were primarily found.

From Abundance, distribution and habitat of leatherback turtles [Dermochelys coriacea] off California 1990-2003 – Fish Bulletin 105

Figure 6, page 345

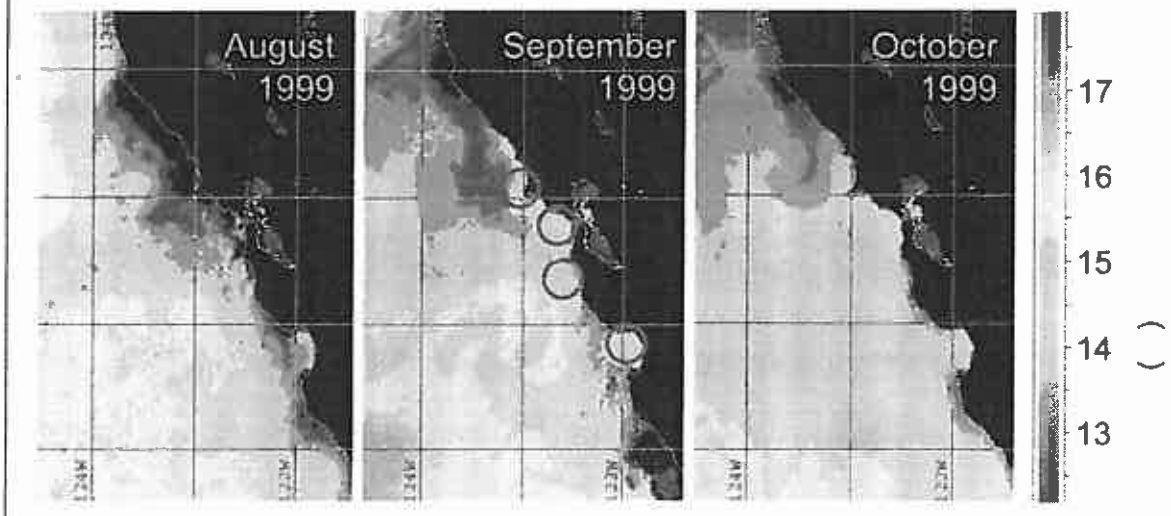

Figure 6

Pattern of upwelling and retention along the central California coast, illustrated with monthly satellite-derived sea surface temperature images for August, September, and October 1999. Leatherback turtles (*Dermochelys coriacea*) and Scyphomedusae were primarily found in areas of retention (circled in middle panel). High resolution monthly composite satellite images courtesy of NOAA CoastWatch, West Coast Node.

Pacific Leatherback Sea Turtle Critical Habitat

OCEANA | Protecting the World's Oceans

Dr. Geoff Shester

Pacific Fishery Management Council Agenda G.4
Critical Habitat for Pacific Leatherback Sea Turtles

April 11, 2010

Proposed Leatherback Sea Turtle Critical Habitat,

Excluded Areas, Sightings, Telemetry Positions and Bycatch in Drift Gillnet Fishery

Photo: Nancy Black, NOAA

Leatherback Sightings

Leatherback Takes in DGN fishery

Leatherback Telemetry Positions

Areas Proposed for CH Designation

Areas Proposed to be Excluded from CH

Petitioned Area (PLCA)

Data courtesy of NOAA Protected Resources and NOAA Fisheries Southwest Fisheries Science Center

published in:
NMFS 2009
Revisions of Critical Habitat for Leatherback Sea Turtles
Biological Report
http://www.nmfs.noaa.gov/pr/species/turtles/

Seattle
Aberdeen
Astoria
Tillamook
Newport
Yachats
Florence
Coos Bay
Brookings
Crescent City
Fort Bragg
Bodega Bay
San Francisco
Monterey
Morro Bay
Santa Barbara
Los Angeles

Washington
Oregon
California

Pacific Leatherback Conservation Area (PLCA)

1 2 3 4 5 6 7 8

0 80 160 320
Miles

Map prepared by Ben Enticknap, Oceana. April 2010