Agenda Item K.1
Situation Summary
September 2010

NATIONAL MARINE FISHERIES SERVICE REPORT

The National Marine Fisheries Service (NMFS) Southwest Region will report on recent regulatory matters and the Southwest Fisheries Science Center (SWFSC) will report on science activities.

Council Task:

1. Discussion.

Reference Materials:

1. Agenda Item K.1.a, NMFS Report: NMFS Report on Highly Migratory Species.

Agenda Order:

a. Regulatory Activities **Mark Helvey**
b. Fisheries Science Center Activities **Sarah Shoffler**
c. Reports and Comments of Advisory Bodies and Management Entities
d. Public Comment
e. Council Discussion

PFMC
08/25/10

NATIONAL MARINE FISHERIES SERVICE
HIGHLY MIGRATORY SPECIES REPORT

REGULATORY ACTIVITY

Vessel Capacity Proposed Rule

NMFS is proposing regulations under authority of the Tuna Conventions Act of 1950, as amended, to revise the total U.S. vessel well volume carrying capacity limit for the purse seine fishery which targets tuna species in the IATTC Convention Area. The proposed changes would ensure that U.S. regulations are consistent with the amount authorized under resolutions adopted by the IATTC. If adopted, the proposed rule would set the purse seine carrying capacity limit to 31,775 cubic meters and require small purse seine vessels to be accounted for in the total capacity limits by including them on the IATTC Vessel Register. These revisions would ensure that the United States is satisfying its obligations under the Tuna Conventions Act while dismantling regulatory constraints preventing economic development of U.S. industry. The proposed rule will be available for public comment in September 2010.

List of Fisheries (LOF) 2011

On June 25, NMFS published the proposed 2011 list of fisheries (75 FR 36318). The proposed LOF for 2011 reflects new information on interactions between commercial fisheries and marine mammals. Under the Marine Mammal Protection Act (MMPA), NMFS must classify each commercial fishery on the LOF into one of three categories based upon the level of serious injury and mortality of marine mammals that occurs incidental to each fishery. The classification of a fishery in the LOF determines whether participants in that fishery are subject to certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements.

A number of proposed changes will affect fisheries on the west coast. Of particular relevance to HMS fisheries is the proposal to reclassify the California/Oregon drift gillnet fishery from a Category I to a Category III fishery and to reclassify the California tuna purse seine fishery from a Category II to a Category III fishery given low levels of serious injury and mortality of marine mammals. In addition, NMFS is proposing a number of changes to the lists of marine mammals species/stocks seriously injured or killed in various fisheries and the number of participants in each fishery.

Leatherback Critical Habitat

On January 5, 2010, NMFS published a proposed rule in the Federal Register (75 FR 319) that would revise the current critical habitat for the leatherback sea turtle (which currently is restricted to nesting beach habitat in St. Croix, USVI) by designating additional areas within the Pacific Ocean. The proposed rule was open for public comment for 60 days and subsequently extended for an additional 45 days. The public comment period closed on April 23, 2010. The CHRT is currently reviewing public comments received (including the Council's April 22, 2010 to David Cottingham) and considering revisions to the areas being proposed as critical habitat, the important features (termed primary constituent elements or PCEs) essential for the

conservation of leatherback sea turtles in marine species, and the activities that would require special management to protect the PCEs.

NEW NOAA LEADERSHIP

Russell Smith III

In February 2010, Russell Smith III joined the NOAA leadership team as the new deputy assistant secretary for international fisheries. One of Russell's chief responsibilities will be to serve as the new U.S. government commissioner for the International Commission for the Conservation of Atlantic Tunas (ICCAT). He will also provide high-level coordination among all of the tuna regional fishery management organizations. Moreover, Russell will be working very closely with Dr. James Turner, director of NOAA International Affairs, and Eric Schwaab, Assistant Administrator for NOAA Fisheries, on a number of key priorities.

UPCOMING MEETINGS

September 17, 2010, La Jolla, CA. General Advisory Committee and Scientific Advisory Subcommittee to the U.S. Section to the Inter-American Tropical Tuna Commission (IATTC) meeting

September 23-October 1, 2010, Antigua, Guatemala. IATTC and the Agreement on the International Dolphin Conservation Program (AIDCP) meetings

September 30-October 5, 2010, Pohnpei, Federated States of Micronesia. Western and Central Pacific Fisheries Commission (WCPFC) Technical and Compliance Committee (TCC) meeting

December 6-10, 2010, Honolulu, HI. WCPFC annual meeting

RECENT MEETINGS

July 6-9, 2010, Manta, Ecuador: Shark Identification Guide Workshop: This workshop, third in a series of shark workshops sponsored by NOAA Fisheries, the U.S. State Department, Ecuador's Ministry of Fisheries, Mexico's National Commission of Fisheries and Aquaculture, and a host of regional organizations, was convened to provide hands-on training for species-specific shark identification methods and basic laboratory skills for employing genetic identification techniques. Workshop participants collaborated on development of a regional Spanish-language Shark Identification Guide and Data Collection Sheet covering the most commonly encountered shark species in the region's fisheries. Dr. John Hyde of the NMFS SWFSC La Jolla laboratory provided the genetics training and Craig Heberer of the NMFS SWR Sustainable Fisheries Division presented an overview of U.S. HMS shark monitoring programs and data collection protocols. These workshops have focused on improving catch and landings data for trans-boundary shark resources including HMS FMP Management Unit Species shortfin mako, blue shark, and common thresher shark.

July 21-26, Victoria, BC, Canada: International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean (ISC10)

August 30, 2010, La Jolla, CA: Consultation on Pacific Bluefin Tuna between the IATTC, Mexico, and Japan. Meeting documents will be available at the following website: http://www.iattc.org/Meetings2010/Technical-Meeting-on-Sharks-2010ENG.htm.

August 30, 2010, La Jolla, CA: IATTC Technical Meeting on Sharks. Meeting documents will be available at the following website: http://www.iattc.org/Meetings2010/Technical-Meeting-on-Sharks-2010ENG.htm.

August 31-September 3, 2010, La Jolla, CA: IATTC Scientific Advisory Committee meetings . Meeting documents will be available at the following website: http://www.iattc.org/Meetings2010/Technical-Meeting-on-Sharks-2010ENG.htm

Summary of the 10th Meeting of the International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean

International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean (ISC10) met in Victoria, B.C., Canada from 21-26 July 2010. This meeting reviewed stock assessment progress in the past year and developed conservation advice on albacore tuna, Pacific bluefin tuna, striped marlin and swordfish, and established a new shark working group.

Pacific bluefin tuna
ISC noted that current F (2004-2006) is greater than most commonly used biological reference points (BRP) that may serve as potential target reference points. ISC provided the following consensus conservation advice:
Given the conclusions of the July 2010 PBFWG workshop (Annex 7), the current (2004-2006) level of F relative to potential biological reference points, and the increasing trend of F, it is important that the level of F is decreased below the 2002-2004 levels, particularly on juvenile age classes.

The next assessment is planned for 2012.

Albacore tuna
Because an assessment for albacore tuna was last conducted in 2006, ISC provided no new conservation advice and maintained its 2007 advice, that fishing mortality should not be increased. ISC10 concluded that a full albacore assessment should occur as soon as possible. The next assessment is planned for 2011.

Striped marlin
For striped marlin, the last assessment was completed in 2007 and ISC maintained its existing conservation advice, adopted in 2007, that fishing mortality should be reduced from current (2001-2003) levels.

Swordfish
For swordfish, ISC conducted an update of the EPO swordfish stock assessment and reached the same conclusion as in 2009, that the WCPO and EPO stocks in the North Pacific Ocean are healthy and above the level required to sustain recent catches. ISC provided no conservation advice for these stocks.

Sharks
ISC10 established a Shark Working Group to conduct stock assessments and other scientific studies as required. It will collaborate with other RFMOs and initially work on assessments of blue and shortfin mako sharks. Other sharks of particular interest are: bigeye thresher, pelagic thresher, silky, oceanic whitetip, and hammerhead.

Agenda Item K.1.b
Supplemental SWFSC PowerPoint
September 2010

Southwest Fisheries Science Center HMS Report September 16, 2010

Pacific Fisheries Management Council Meeting
Boise, ID

Sarah Shoffler

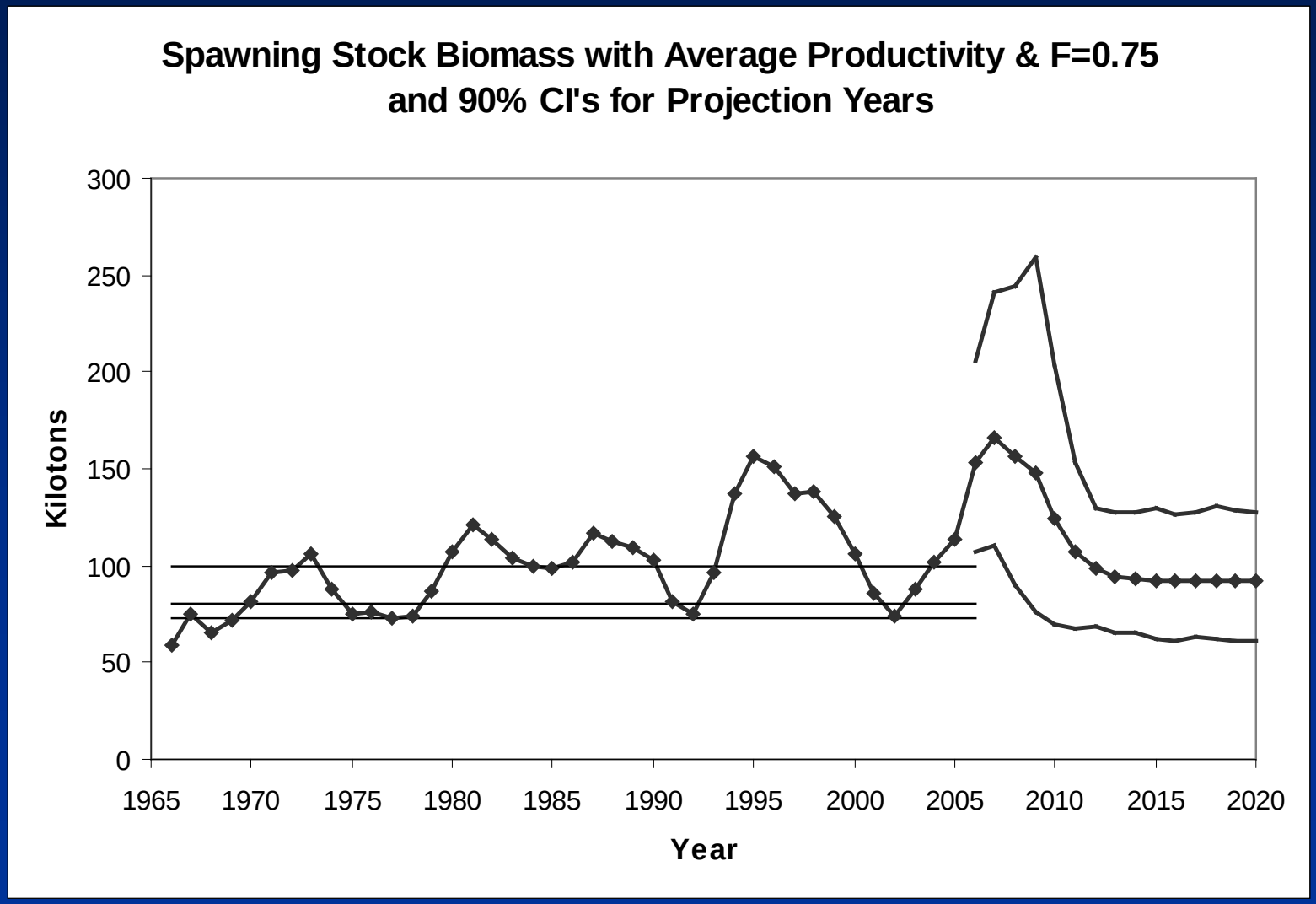
- **ISC – assessments of:**
  - Albacore
  - Pacific bluefin tuna
  - North Pacific striped marlin
  - Swordfish
- **IATTC – Science advisory committee:**
  - Yellowfin
  - Bigeye
  - Skipjack
  - Striped marlin

North Pacific Albacore (ALB)

- Last assessment in 2006
- Next assessment in 2011
- No change in conservation advice in 2010

ISC

Estimated Spawning Stock Biomass of North Pacific Albacore



ISC

North Pacific Albacore (ALB)

- Last assessment in 2006
- No change in conservation advice in 2010
- Keeping $F_{2002\text{-}04} = 0.75$ will reduce SSB
- **The $F_{2002\text{-}04}$ (0.75) is high relative to most F reference points**

ISC

ALB - Advice

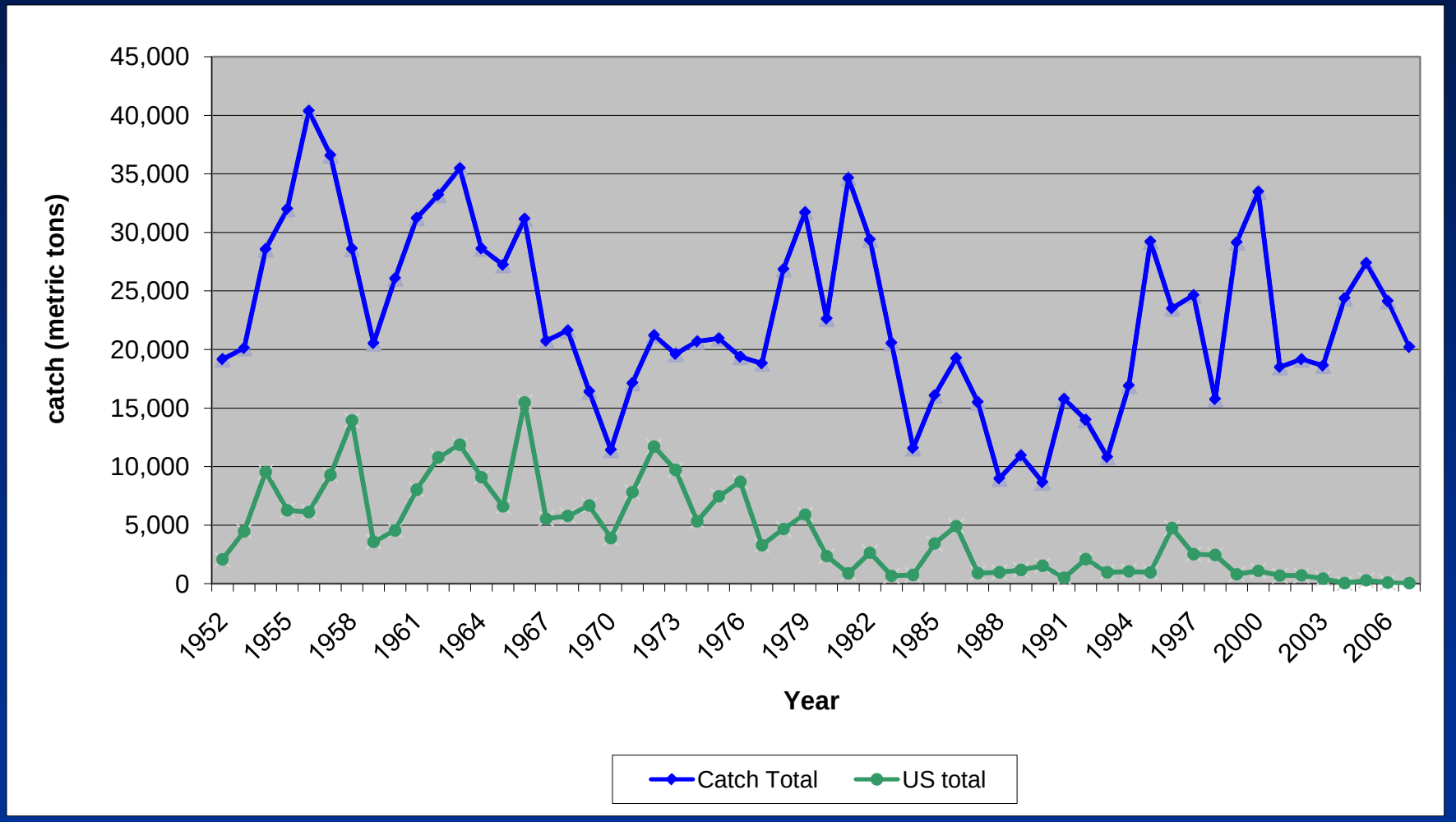
- F should not be increased from the 2002-2004 level (0.75)
- With the projection of a reduced SSB by the mid 2010s, F will likely exceed the interim BRP

ISC

Pacific Bluefin Tuna (PBF)

- **ISC conducted a stock assessment in 2008-09; analyses in 2010:**

PBF catch 1952-2007



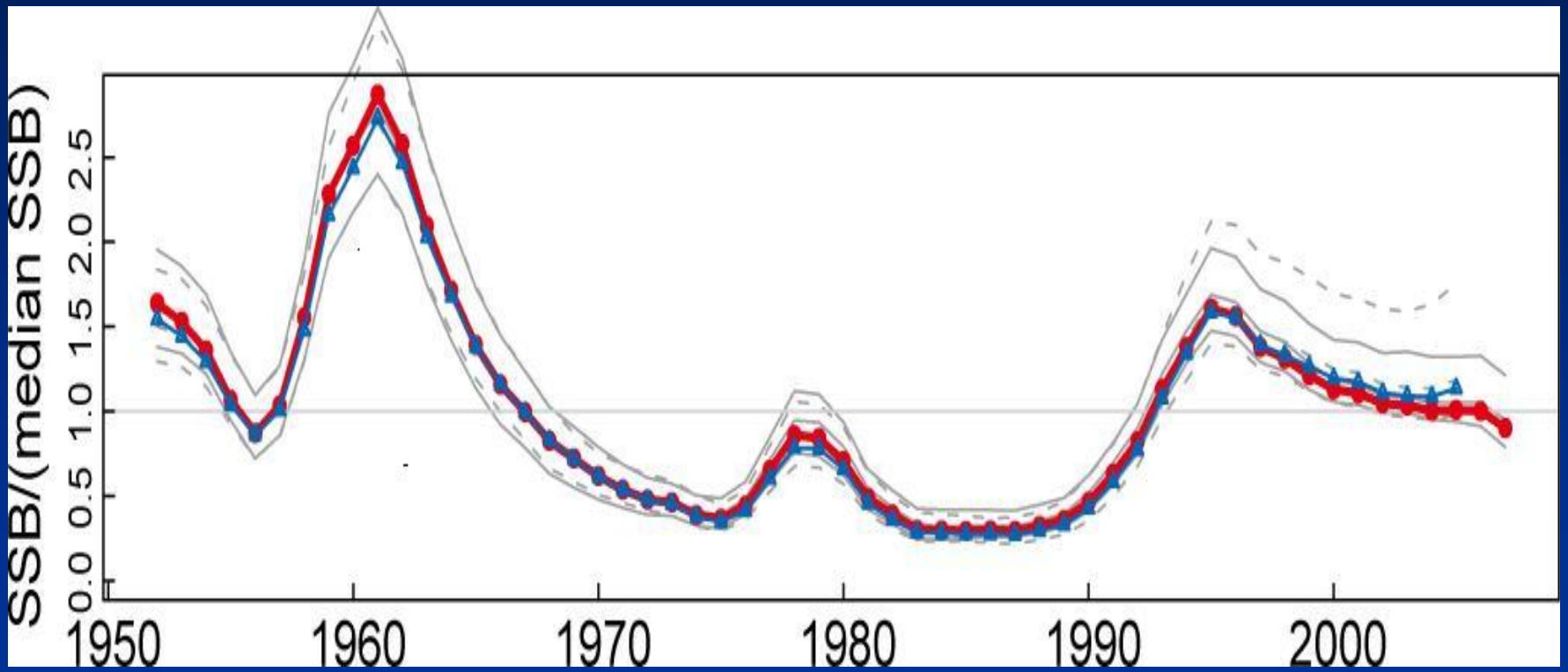
ISC

Pacific Bluefin Tuna (PBF)

- ISC conducted a stock assessment in 2008-09; analyses in 2010:
- **Catch – increasingly on juveniles; and majority by weight on juveniles (0-4 year olds)**

ISC

PBF – relative SSB trend



Pacific Bluefin Tuna (PBF)

- ISC conducted a stock assessment in 2008-09; analyses in 2010:
- Catch – increasingly on juveniles; and majority by weight on juveniles (0-4 year olds)
- Spawning stock biomass has declined
- **F has increased since 2004**

ISC

Pacific Bluefin Tuna (PBF)

- ISC conducted a stock assessment in 2008-09; analyses in 2010:
- Catch – increasingly on juveniles; and majority by weight on juveniles (0-3 year olds)
- Spawning stock biomass has declined
- F has increased since 2004
- **F for 2004-06 exceeds commonly used BRPs**

ISC

PBF – ISC conservation advice

Given the conclusions of the July 2010 PBFWG workshop, the current (2004-06) level of F relative to potential biological reference points, and the increasing trend of F, **it is important that the level of F is decreased below the 2002-04 levels, particularly on juvenile age classes.**

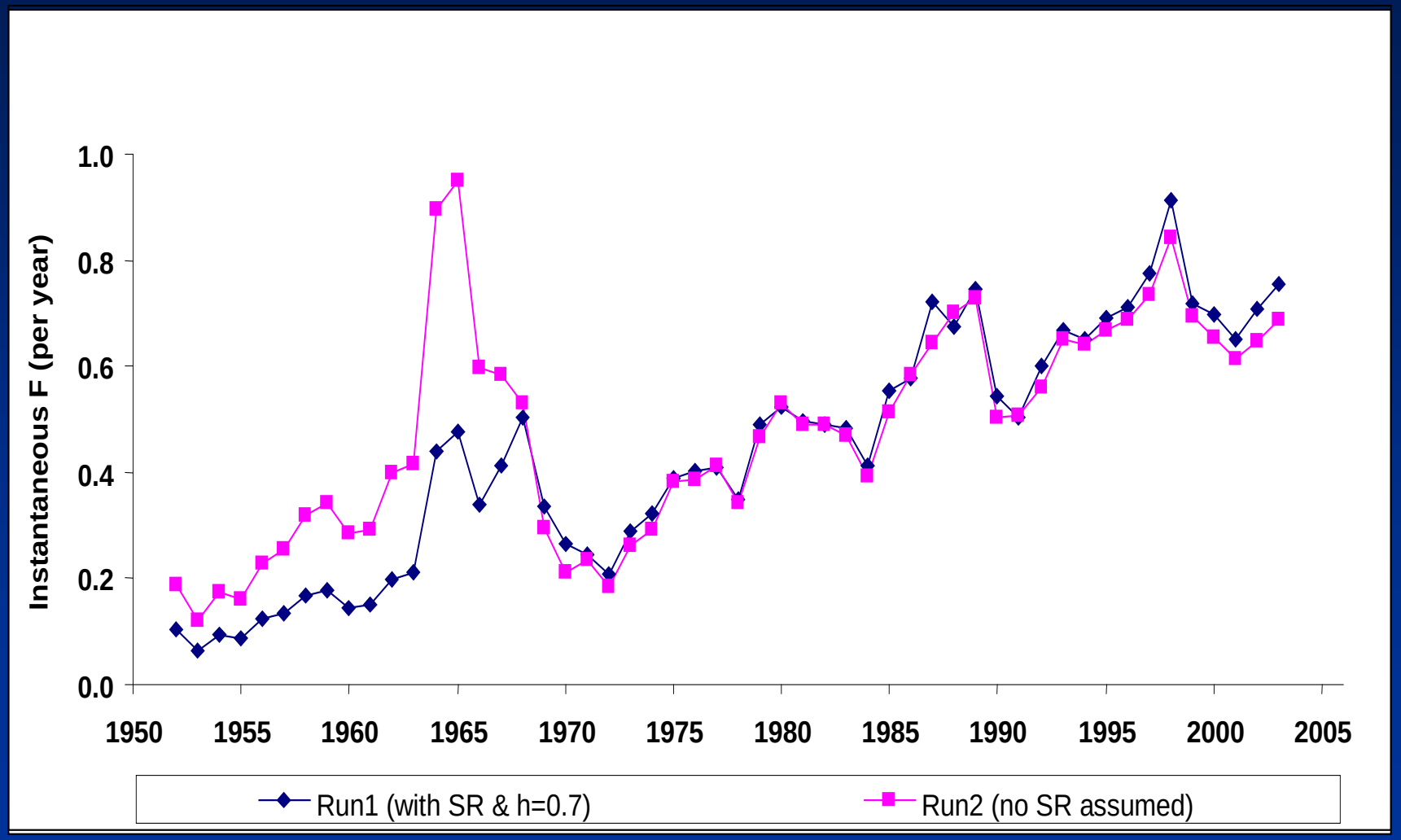
North Pacific Striped Marlin (MLS)

- **ISC conducted stock assessment in 2007**
- **Next planned for 2011**

North Pacific Striped Marlin (MLS)

- ISC conducted stock assessment in 2007
- Next planned for 2011
- **2007 results indicated that SSB_{2005} at a historically low level**
- **F_{2003} high and exceeds typically used BRPs**

Fishing Mortality Rate (F) for Striped Marlin Spawners (Ages 5+)



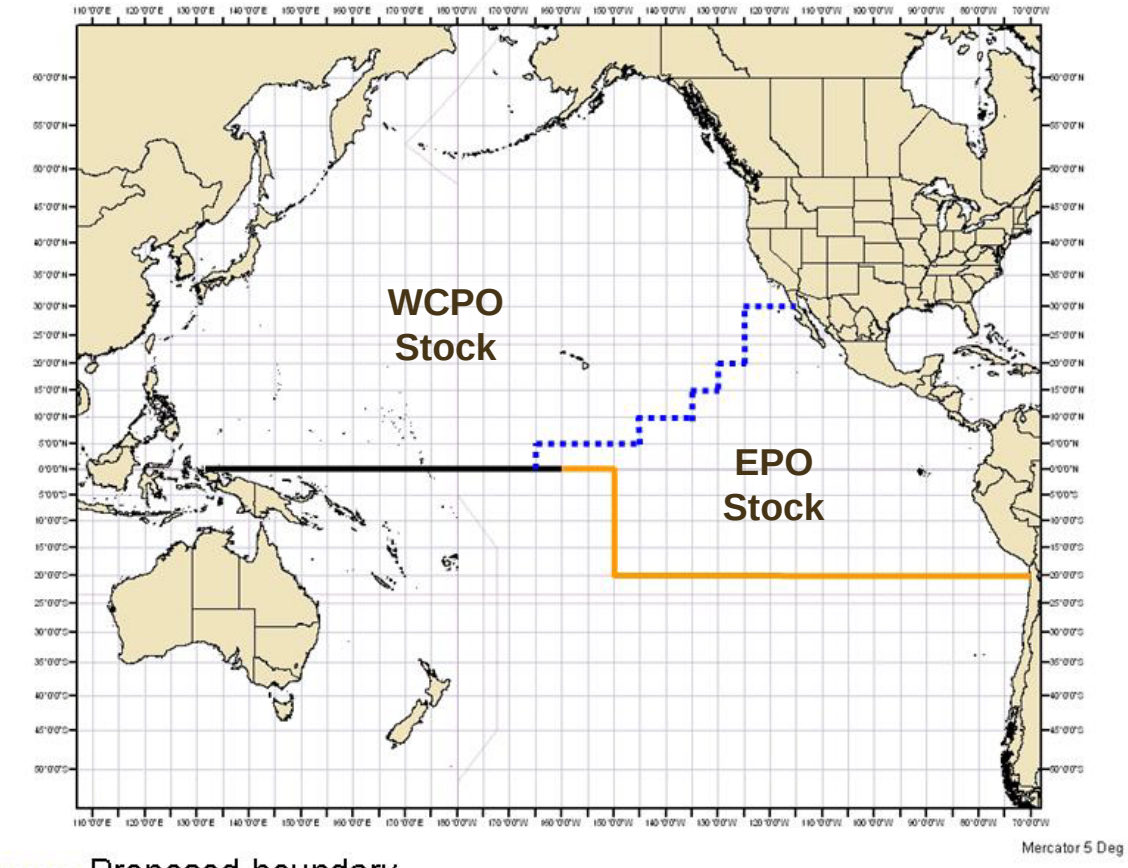
MLS

- Last stock assessment in 2007
- Next planned for 2011
- 2007 results indicated that SSB_{2005} at a historically low level
- F_{2003} high and exceeds typically used BRPs
- **Conservation advice from ISC7 maintained, i.e., $F_{2001\text{-}03}$ should be reduced**

Swordfish (SWO)

- **ISC conducted an assessment in 2009 using both a single- and a 2-stock scenario.**

Swordfish – Areas for 2-stock scenario



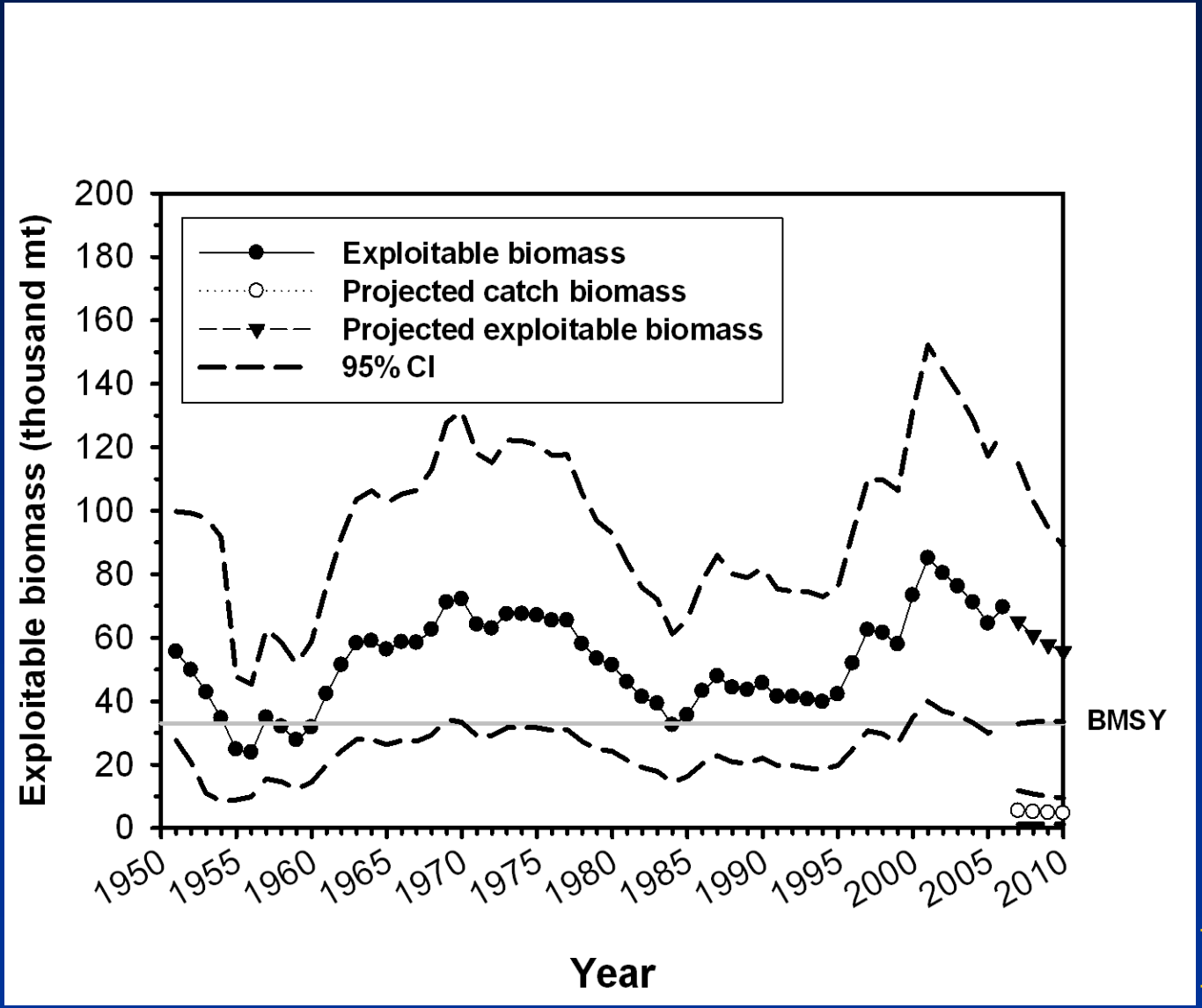
Proposed boundary

Adapted from Ichinokawa and Brodziak (2008; Figure 7d)

Swordfish (SWO)

- ISC conducted an assessment in 2009 using both a single- and a 2-stock scenario.
- **Assessment indicated that stock was healthy and above the level required to sustain recent catches**

EPO Swordfish exploitable biomass



ISC

SWO – ISC conservation advice

- **The WCPO and EPO stocks in the North Pacific Ocean are healthy and above the level required to sustain recent catches.**

ISC

Other

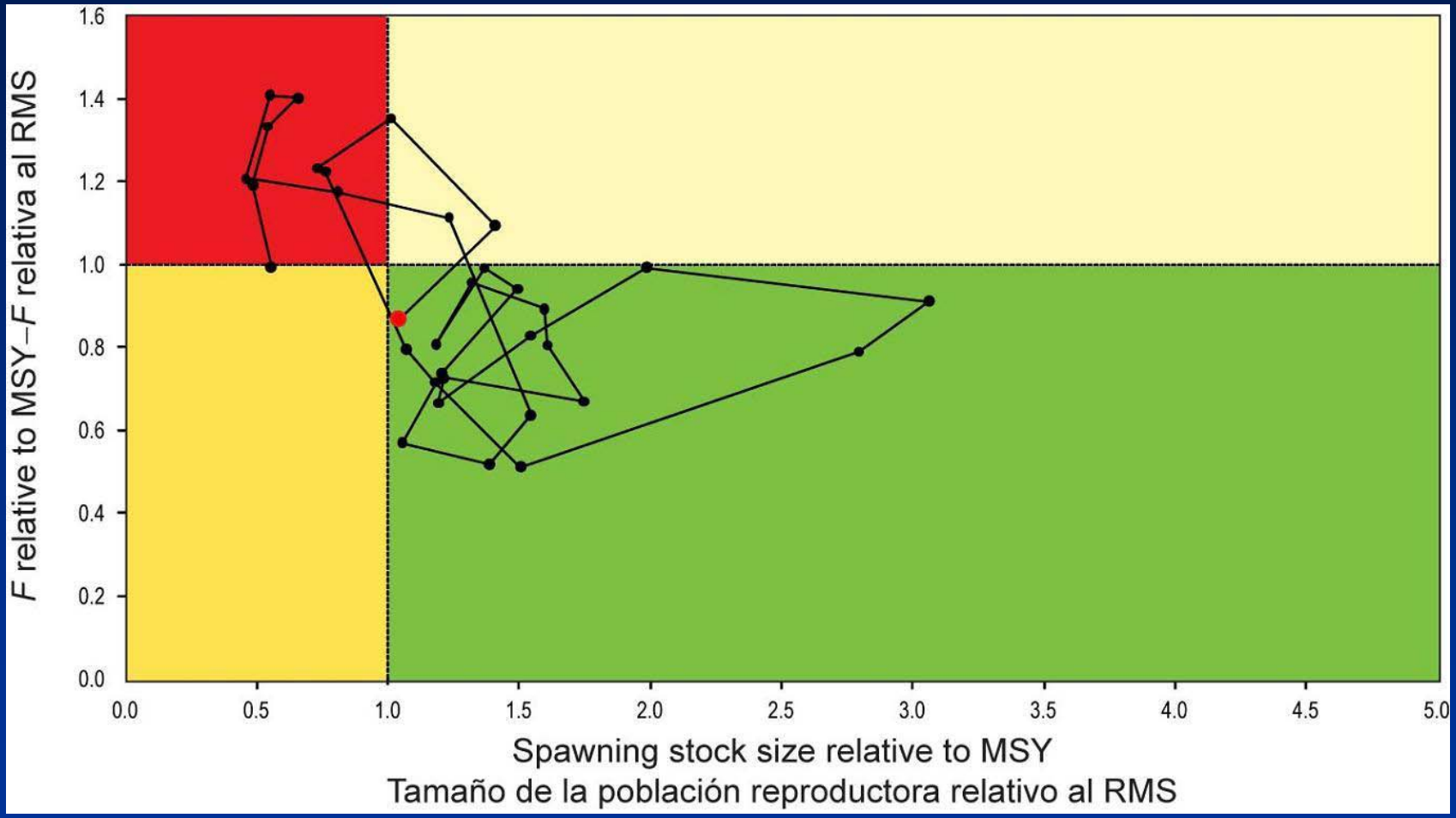
- Sharks
- Blue marlin
- More info and documents: http://isc.ac.affrc.go.jp/

ISC

Yellowfin tuna

- IATTC conducted an updated assessment in 2010.
- Assuming no stock-recruitment relationship, not overfishing and not overfished.
- Results less optimistic when stock-recruitment relationship is assumed.

Yellowfin tuna – Kobe plot

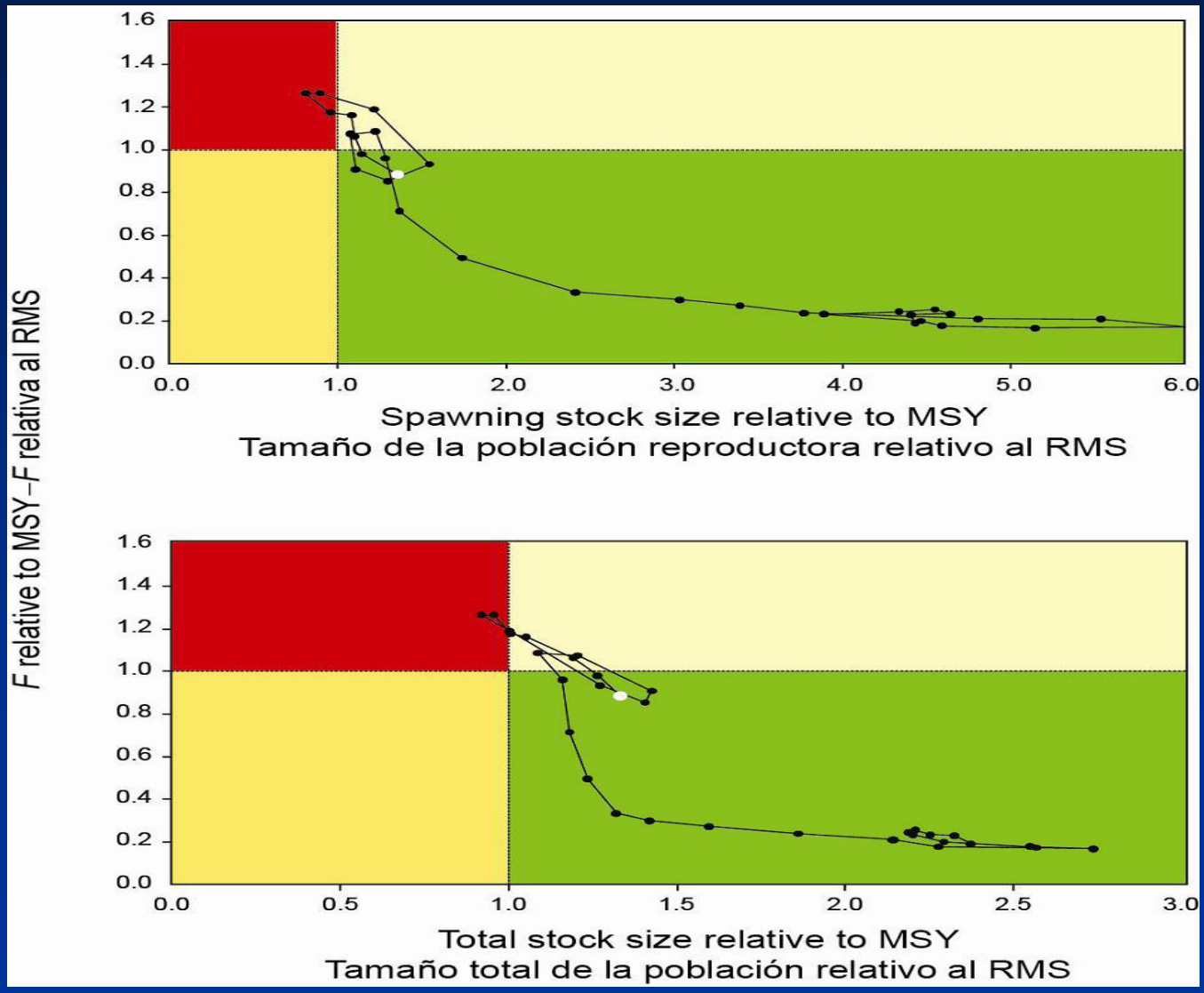


IATTC

Bigeye tuna

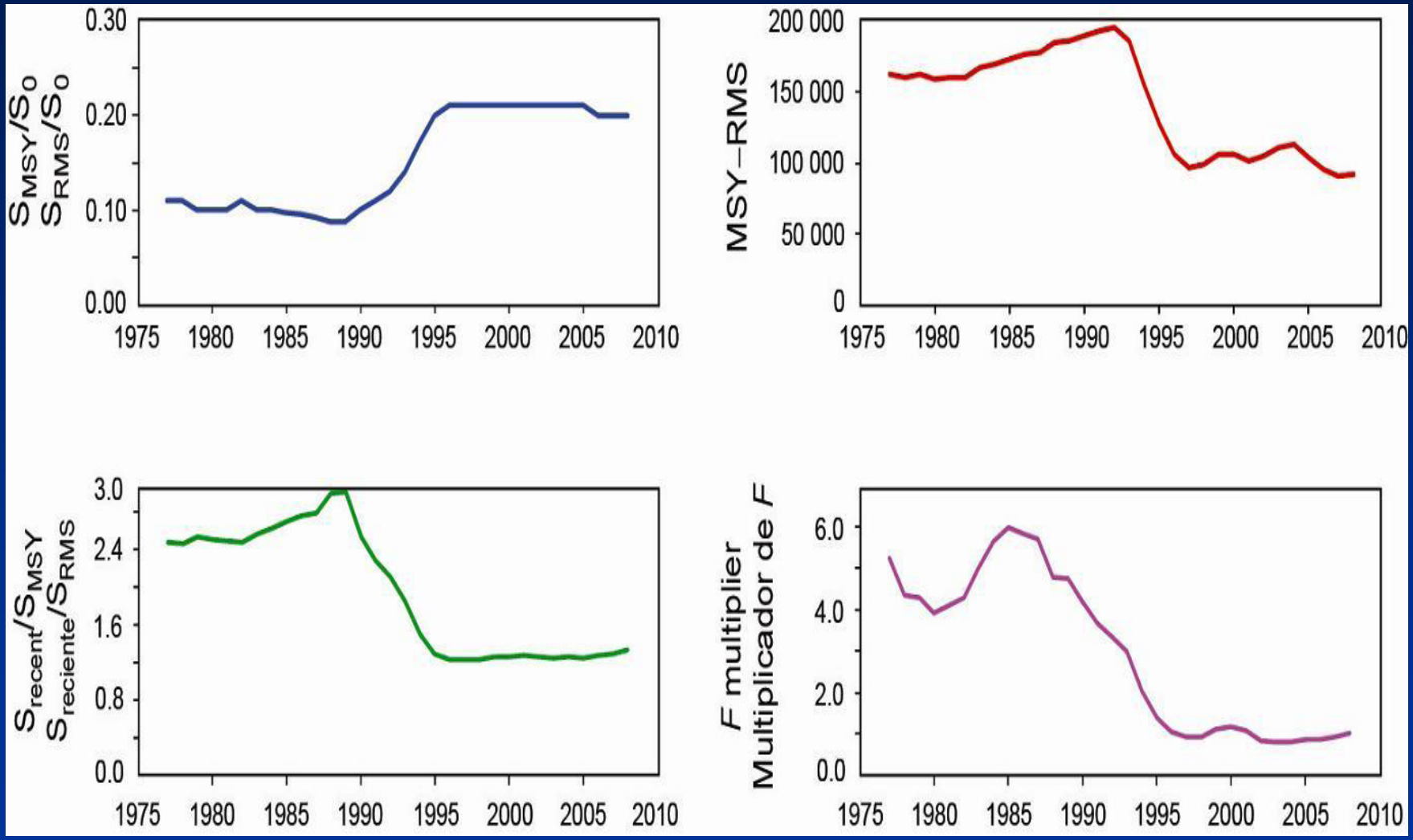
- IATTC conducted an updated assessment in 2010.
- Assuming no stock-recruitment relationship, not overfishing and not overfished.
- Results less optimistic when stock-recruitment relationship is assumed.

Bigeye tuna – Kobe plot



IATTC

Bigeye tuna – MSY over time



IATTC

Skipjack tuna

- IATTC looked at indicators of stock status compared to historical observations
- Results:
  - Exploitation rate increased over time
  - No adverse consequences
  - Average weight is below the reference level
  - Decline in average length, and leveling off of catch and CPUE
  - May suggest that F is approaching or above F_{MSY}

Striped Marlin (MLS)

- **IATTC conducted an assessment in 2010 for a northeastern stock of striped marlin.**

Striped Marlin (MLS)

- IATTC conducted an assessment in 2010 for a northeastern stock of striped marlin.
- **Results – not overfished, not overfishing.**

Questions?

HIGHLY MIGRATORY SPECIES REPORT ON NATIONAL MARINE FISHERIES SERVICE REPORT

The Highly Migratory Species Advisory Subpanel (HMSAS) would like to commend the National Marine Fisheries Service (NMFS) for the reclassification of the California/Oregon drift gillnet fishery from a Category I to a Category III fishery, as well as the California Tuna Purse Seine fishery from a Category II to a Category III classification. The efforts of the participants in these fisheries using new technologies such as satellite imaging of sea surface temperature and water clarity, pingers for marine mammal deterrence, and captains educational workshops has greatly reduced interactions between fisheries and populations of marine mammals and sea turtles off our coast.

The HMSAS would request the Council direct the Highly Migratory Species Management Team and Scientific and Statistical Committee analyze and review and explain the candidate biological reference points presented at the Northern Committee meeting in regards to North Pacific albacore tuna.

PFMC
09/15/10

CHANGES TO BIENNIAL MANAGEMENT MEASURES FOR 2011-2012

Section 5.2 in the Fishery Management Plan (FMP) for U.S. West Coast Fisheries for Highly Migratory Species (HMS) describes the biennial management cycle. Under this process Council decision-making occurs at the June, September, and November Council meetings to establish or adjust harvest specifications and management measures for a two-year period beginning on April 1 of the following year—the start of the next fishing year, April 1, 2011. This agenda item is the second phase in the decision-making process where the Council is scheduled to adopt for public review more detailed proposals for the issues identified at the June Council meeting. These proposals are presented as a range of alternatives to support analytical requirements under the National Environmental Policy Act.

In June the Council identified a proposal from the Washington Department of Fish and Wildlife (WDFW) to establish a recreational bag limit for albacore tuna. The attached WDFW Report provides background and rationale for this bag limit proposal. The report recommends consideration of bag limits of 10, 15, 20, and 25 albacore tuna per fishing trip for public review. The Highly Migratory Species Management Team (HMSMT) will provide a supplemental report with recommendations for the range of alternatives and a preliminary analysis.

Mr. Pete Dupuy submitted a letter requesting that the Council modify existing regulations at 50 CFR 660.712 to make them consistent with regulations implemented pursuant to the Western Pacific Fishery Management Council's (WPFMC) Pacific Pelagics Fishery Ecosystem Plan, which, among other things, would allow a shallow-set longline fishery targeting swordfish in the area west of the Exclusive Economic Zone (EEZ) and east of 150° W longitude. (Regulations for Western Pacific pelagic fisheries are found at 50 CFR 665, Subpart C.) Regulations may be modified through the HMS FMP's framework provisions (the biennial process). Section 2.4 in the HMS FMP lists fixed elements of the FMP that require an FMP amendment to change, while Section 5.1 lists the types of measures that may be established, adjusted, or removed through the framework process. In relation to Mr. Dupuy's request, it appears that as long as proposed modifications do not include establishment of a limited entry program, would not authorize a longline fishery within the west coast EEZ, and are consistent with the FMP's management objectives, the changes could be accomplished by regulatory action through the framework process. The Council may wish to consider whether to pursue this request, and if so, whether to accomplish the modifications through the current biennial process or a different regulatory amendment process.

While not specifically referenced in his letter, Mr. Dupuy informed Council staff that in addition to consideration of all the longline regulations, he wanted to draw the Council's attention to a recent recommendation from the WPFMC to change the swordfish retention limit in the deep-set (tuna) longline fishery from 10 to 25 fish. At a minimum, he would like the Council to consider changing HMS FMP regulations consistent with this WPFMC proposal. Attachment 1 provides background information on the regulation and WPFMC action.

Council Action:

Adopt Proposed Changes to Biennial Management Measures for 2011-12 for Public Review.

Reference Materials:

1. Agenda Item K.2.a, Attachment 1: Background Information on Swordfish Retention Limits for the Shallow-set Longline Fishery.
2. Agenda Item K.2.b, WDFW Report.
3. Agenda Item K.2.c, Public Comment.

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 Proposed Changes to Biennial Management Measures for 2011-12 for Public Review

PFMC
08/24/10

BACKGROUND INFORMATION ON SWORDFISH RETENTION LIMITS FOR THE SHALLOW-SET LONGLINE FISHERY

Hawaii Regulations on Swordfish Retention

50CFR665.33(j) Owners and operators of vessels registered for use under a Hawaii longline limited access permit may land or possess no more than 10 swordfish from a fishing trip for which the permit holder notified National Marine Fisheries Service (NMFS) under Sec. 665.23(a) that the vessel would engage in a deep-setting trip.

West Coast Regulations on Swordfish Retention

50CFR660(a)(10) Owners and operators of longline vessels registered for use of longline gear may land or posses no more than 10 swordfish from a fishing trip where any part of the trip included fishing west of 150° W. long. and north of the equator (0° N. lat.).

50CFR660(a) (11) Owners and operators of longline vessels registered for use of longline gear are subject to the provisions at 50 CFR part 223 prohibiting shallow sets to target swordfish in waters beyond the U.S. EEZ and east of 150° W. long. and establishing that no more than 10 swordfish may be landed by a longline vessel registered for use of longline gear from a trip if any sets of longline gear were made on that trip in those waters.

Western Pacific Fishery Management Council Recommendation on Change in Swordfish Retention Limit

Background (from Synopsis of Action Items, 148th Council Meeting, June 28-July 1, 2010)

The final rule which implemented the Western Pacific Council's management of shallow set swordfish longline fishery (FR Vol. 69, No. 184098-4105) in 2004 included a limit of 10 swordfish per trip for the deep set tuna targeting fishery. The purpose of the trip limit was to prevent vessels departing ostensibly to deep set longlines to catch bigeye and yellowfin tuna, from switching to shallow set gear and targeting swordfish. Since 2004, shallow-set swordfish longlining has been stringently regulated with required gear (8/0 circle hooks, mackerel type bait), 100 percent observer coverage, and 50 percent of the average pre 2000 level of fishing effort in shallow sets, with set certificates distributed to the longline fishermen. In 2009, the Council amended the Pelagics Fishery Ecosystem Plan to remove the set limits on the swordfish longline fishery for the fishing year 2010 onwards. North Pacific swordfish stocks are currently healthy and not approaching an overfished or overfishing condition. Current regulations define deep set tuna longline fishing and with the set limit removed from the shallow-set fishery, the ten swordtish per trip limit is unnecessarily duplicative and burdensome for longline fishermen. Moreover, the 10 swordfish per trip limit creates regulatory discards which contribute to bycatch and which have market value. For these reasons, the Council generated the following recommendation at its 146th meeting:

> Regarding the deep set longline swordfish trip catch limit, the Council recommended staff review the impact of the catch limit on swordfish incidental catch and draft an options paper with alternatives that may include among other options, modifying the swordfish catch limit, removing the limit altogether, as well as the no action alternative.

At the 147th Council meeting the Council considered the alternatives for the Hawaii deepset longline swordfish trip limit and recommended, as the preferred alternative, establishing a 25 swordfish trip limit for deep set tuna targeting longline vessels using circle hooks, and 10 swordfish per trip for vessels using tuna-hooks, if vessels are not carrying observers. If an observer is being carried by a deep-set tuna vessel then there is no limit to the amount of swordfish that can be retained by a longline vessel. The 148th Council Meeting will consider final action for the deep set longline swordfish trip catch limit, and may endorse its selection of the preferred alternative made at the 147th meeting.

Council Recommendation (from Press Release)

At the 148th meeting (June 28-July 1, 2010) the Council took final action to allow Hawaii longline vessels setting deep for tuna to retain 25 swordfish per trip when using circle hooks and 10 swordfish per trip when using other hooks. When carrying an observer, the vessels would have no swordfish retention limit, regardless of the type of hook used. North Pacific swordfish stocks are healthy, and this measure will allow fishermen to market rather than waste swordfish that are not alive when boated by longliners that set deep for tuna.

Note on Rationale for Circle Hook Requirement

This requirement is an incentive because the False Killer Whale Take Reduction Plan[1] recommends the use of circle hooks in the longline fishery to reduce mortality and serious injury. Circle hooks will be required in the fishery beginning in 2011 so this aspect of the proposal is somewhat moot.

PFMC
08/23/10

[1] http://www.nmfs.noaa.gov/pr/pdfs/interactions/fkwtrp_draft.pdf

HIGHLY MIGRATORY SPECIES ADVISORY SUBPANEL REPORT ON CHANGES TO BIENNIAL MANAGEMENT MEASURES FOR 2011-2012

Shallow-Set Longline Fishery

The Highly Migratory Species Advisory Subpanel (HMSAS) strongly recommends that the Council begin the process to establish a shallow-set longline fishery for swordfish as allowed under the current regulatory framework.

The HMSAS believes that a shallow-set fishery for swordfish is justified for the following reasons:

- The Hawaiian shallow-set fishery reopened in 2004. This fishery has expanded and demonstrated that fishing for swordfish with longline gear can be prosecuted with minimal impacts to sea turtles.
- The 2010 stock assessment on swordfish indicated that the stock is healthy and that there are no current conservation issues.

Further justification:

There is a clear hypocrisy between what is allowed in the Hawaiian fishery and what is currently prohibited by our west coast regulations. This difference in treatment should concern the Council. The Hawaiian fishery is catching swordfish, using the same gear, and even landing this fish on the west coast when our own west coast longline fishermen are unable to do so. Obviously this is detrimental to west coast fishermen economically and without sound justification. The National Standards in the Magnuson Act dictate both fairness and equity, and that discrimination between residents of different states is not allowed. Further, the net economic benefit to the nation must be considered – especially when there is no clear conservation issue to be addressed.

It is not necessary to reinvent the wheel to consider establishing this fishery. Much of the work and analysis has already been done. The HMSAS strongly supported the proposal that was considered by the Council last year - this proposal was based on a carefully crafted and precautionary approach for the same type of longline shallow-set fishery.

The HMSAS reiterates its strong support for establishing a longline shallow-set fishery for swordfish outside of the west coast 200 mile Exclusive Economic Zone. This is a great opportunity to provide our west coast fishermen access to a healthy and sustainable fishery and the dollars generated through this fishery will help both the industry and coastal communities our industry supports.

Washington Recreational Bag Limits

The HMSAS agrees that the range of potential recreational albacore bag limit options including status quo presented by the Washington Department of Fish and Wildlife (WDFW) are

reasonable. However, the HMSAS does believe that the options and related data need further analysis. Thus, the HMSAS cannot make any specific recommendations at this time.

Swordfish Retention

The HMSAS supports establishing consistency with Hawaii regulations that enable deep-set tuna longliners to retain 25 swordfish without an observer and unlimited retention of swordfish if the vessel carries an observer on the trip. Presently West Coast based vessels can only possess 10 swordfish.

PFMC
09/16/10

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT ON CHANGES TO BIENNIAL MANAGEMENT MEASURES FOR 2011-2012

The Highly Migratory Species Management Team (HMSMT) considered three potential changes to management measures for the 2011-2012 biennial cycle:

1) Establish a recreational bag limit for albacore tuna for Washington anglers
2) Increase swordfish retention limits for deep-set longline fisheries on the high seas
3) Change the regulations for the shallow-set longline fishery for swordfish on the high seas to make them consistent with Hawaii regulations.

The HMSMT met with the Highly Migratory Species Advisory Subpanel (HMSAS) to discuss these proposals and with Mr. Pete Dupuy to discuss the longline fishery proposals.

Establish a recreational bag limit for albacore tuna for Washington anglers

At the June 2010 meeting, Washington Department of Fish and Wildlife (WDFW) proposed Council consideration of a recreational bag limit for albacore as part of its biennial management cycle for highly migratory species. Currently, the Washington recreational fishery has no albacore bag limit but the number of charter operators that may take anglers on trips targeting albacore tuna is limited. The Oregon recreational fishery has a daily bag limit of 25 albacore, as a component of a 25-fish limit for offshore pelagic species. The California recreational fishery has a daily bag limit of 25 albacore north of Point Conception and a bag limit of 10 albacore south of Point Conception.

WDFW recommends a range of alternatives including the status quo and bag limits of 10, 15, 20 and 25 albacore per fishing trip for public review (Agenda Item K.2.b, WDFW Report, September 2010). In its rationale for their proposal, WDFW identified a demonstrated commitment to international conservation measures to not increase fishing effort above current levels, support for a shared responsibility for all fisheries harvesting the same stock to contribute to the conservation of the stock, and a level of personal use that is consistent with the purposes of conservation and catch sharing. In addition to these considerations, angler effort by the Washington charter fishery for albacore has moderately increased, but effort by the private recreational fishery has increased substantially, about six-fold since 2004.

The HMSMT considered these alternatives to be appropriate for public review. The HMSMT concurs with WDFW that the level of Washington recreational effort is negligible relative to the total international level of effort for albacore tuna in the North Pacific Ocean, and that significant reductions in catch are not necessary. While the proposed bag limit alternatives do not directly limit effort, they support the intent of the international conservation measures to not increase fisheries for albacore. The range of alternatives adequately covers the spectrum of reasonable levels of harvest for personal use and encompasses limits that would not significantly reduce catch from recent levels. For consistency with other states, the range of alternatives includes a 25-albacore limit, which is similar to bag limits off Oregon and northern California.

Increase swordfish retention limits in the deep-set longline fishery on the high seas

The HMSMT believes that changing the swordfish retention limit for the deep-set tuna fishery from 10 fish to 25 fish can be accomplished as part of the biennial management measures process. To do this, the Council would have to adopt alternatives at this meeting and then choose a preferred alternative at the November meeting. The purpose of this proposed action is to make this aspect of west coast regulations for the longline fishery consistent with Hawaii's regulations. The HMSMT proposes the following two alternatives:

Alternative 1 (No Action): The regulations are not changed and the current 10 fish retention limit stays in place.

Alternative 2: The Council recommends a change to the HMS regulations at 50 CFR 660.712 to make them consistent with the regulatory changes proposed by the Western Pacific Fishery Management Council (WPFMC) as described in Agenda Item K.2.a, Attachment 1 except for the requirement to use circle hooks. The circle hook requirement relates to protected species issue specific to the area where the Hawaii fishery operates and is not relevant to the west coast fishery.

If the Council chooses to move forward with this proposed regulatory change the HMSMT would provide an analysis of these alternatives for Council final action at the November meeting.

Change the regulations for the shallow-set longline fishery for swordfish on the high seas to make them consistent with Hawaii regulations

The HMSMT heard testimony from Mr. Pete Dupuy regarding his request for the Council to begin the process for modifying an existing HMS high-seas pelagic longline fishery regulation to ensure consistency of the PFMC's high-seas longline regulations with those of the WPFMC.

The HMSMT notes an open-access west coast shallow-set longline (SSLL) fishery targeting swordfish occurred on the high seas before the HMS Fishery Management Plan (FMP) was implemented in 2004. This fishery operated in much the same area as the Hawaii fishery currently operates. The February 4, 2004 letter from the National Marine Fisheries Service (NMFS) Regional Administrator to the Council Chair partially approved the HMS FMP and also disapproved the shallow-set longline fishery due to a jeopardy finding for loggerhead sea turtles from an Endangered Species Act (ESA) Section 7 consultation. In the letter, the Regional Administrator discussed the recent development of modified gear that significantly reduces sea turtle interactions and consequent sea turtle injury or mortality. He also suggested that this new information provided a basis for developing alternatives that could allow longline fishing for swordfish without jeopardizing ESA-listed species.

By contrast, the WPFMC reopened the shallow-set longline (SSLL) fishery in 2004 under amendments to the Pelagics FMP that require the use of modified gear to reduce sea turtle interactions. In light of demonstrated success in reducing sea turtle interactions, the Hawaii fishery has subsequently expanded through removing the overall set limit and increasing the turtle take limits. The HMSMT notes that fishermen in possession of a Hawaii limited access longline permit can legally fish outside the 200-nautical mile west coast EEZ boundary and land swordfish to west coast ports. International fisheries for swordfish also operate on the high seas. Also, there are no Regional Fishery Management Organization conservation measures limiting

the number of foreign vessels targeting swordfish outside the west coast Exclusive Economic Zone in the Eastern Pacific Ocean. The HMSMT notes a regulatory consistency issue if no HMS FMP SSLL effort targeting swordfish is permitted outside the 200-mile limit when Hawaii vessels are allowed to fish there and land their catch on the U.S. west coast.

The HMSMT received guidance from National Oceanic and Atmospheric Administration General Counsel on whether it would be possible to address Mr. Dupuy's proposal through the standard biennial process. Based on General Counsel guidance, if the Council wishes to address the SSLL component of Mr. Dupuy's proposal through the biennial process, they could take action at this meeting to place a SSLL regulatory amendment on a later meeting agenda. However as discussed in the Situation Summary, a regulatory amendment would result in an open access fishery; a limited entry fishery would require an FMP amendment.

In summary, the HMSMT recommends the Council:

- Adopt for public review a range of alternatives of status quo, 10, 15, 20 and 25 albacore trip limits for the Washington recreational fishery.

- Adopt for public review the alternatives of status quo and consistency with Hawaii deep-set longline fishery retention limits for swordfish.

- Identify their preferred decision-making process, if the Council desires to consider allowing a shallow-set longline fishery for swordfish.

PFMC
09/16/10

Agenda Item K.2.b
WDFW Report
September 2010

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE REPORT ON HIGHLY MIGRATORY SPECIES CHANGES TO ROUTINE MANAGEMENT FOR 2011-2012

The Washington Department of Fish and Wildlife (WDFW) held a public meeting to discuss the purpose and alternatives for a recreational bag limit for albacore tuna on May 26, 2010, in Westport, and will have another meeting on September 1, 2010, in Montesano.

Based on the results of the 2006 albacore tuna stock assessment, which indicated that overfishing was occurring, the U.S. committed through its participation in the international management of albacore to not increase its albacore fishing effort above current levels. Since then, most West Coast fisheries targeting albacore have either remained steady or exhibited a decline in fishing effort. One exception to that is the Washington recreational fishery, which has shown an increase in fishing effort (i.e., angler trips) in recent years.

The recreational albacore fishery is the one fishery in Washington that does not have any bag limits; all other fisheries either have species-specific bag limits, or are subject to the general food fish limit of two of each species per day. In addition to daily bag limits for other species, there are possession limits in place—one daily bag limit on board a vessel, and two daily bag limits while on land.

WDFW believes that having conservation measures in place for a fishery makes sound management sense. With multiple fisheries harvesting the same stock, which is the case with albacore, all fisheries, regardless of the relative amount they harvest, have a responsibility to contribute to the conservation of the stock by not overfishing. However, given that the Washington recreational fishery represents a very small fraction of the total West Coast albacore catch and effort, WDFW believes that having a bag limit which would significantly reduce the catch from recent levels is not warranted.

This then begs the question of what an appropriate limit should be. The Washington State Legislature defines recreational fishing as a "personal use" fishery, which means for the private use of the individual taking the fish. Given this definition, it could be argued that a bag limit should be set at or, in some cases, for purposes of conservation and catch sharing, below the amount that an individual could personally use.

WDFW recommends proceeding with consideration of a bag limit through the Council process, and approving a range of alternatives including status quo and bag limits of 10, 15, 20, and 25 albacore tuna per fishing trip for public review. Final selection of a preferred alternative would be scheduled for the Council's November 2010 meeting.

Ocean Pacific Seafood
18212 Rosita St.
Tarzana, CA 91356
(818) 343-9927
Fax (818) 881-5003
E-mail: LaPazKD@aol.com

RECEIVED
JUL 23 2010
PFMC

July 16, 2010

Dave Ortmann, Chair,
Pacific Fishery Management Council
7700 NE Ambassador Pl, Suite 200
Portland, OR 97220-1384

Dear Mr. Ortmann,

I am writing to ask the Council to begin the process for modifying an existing HMS high-seas pelagic longline fishery regulation. Of the provisions found under 50 CFR §660.712 (a), all provisions pertaining to the high-seas fishery are obsolete, especially those provisions limiting or prohibiting the directed take of swordfish. This regulation was originally implemented to insure that the Pacific Council's high-seas longline regulations were consistent with the West Pacific Council's high-seas longline regulations.

However, the conditions that once warranted such regulations no longer exist, and the West Pacific Council modified their longline fishing regulations to reflect current conditions and best longline fishing practices. The original intent of section 660.712 was to provide a west coast counterpart to the West Pacific Council's longline regulations in order to effectuate consistent high-seas management of the Pacific U.S. longline fishery between the two Councils. The present regulatory inconsistency noted above thwarts this intent. Section 660.712 needs to be modified so that the West Pacific Council regulations are once again consistent with those of the Pacific Council.

Thank you for your attention to this matter.

Pete Dupuy

cc. Rodney McInnis, Regional Administrator, NMFS, SW Region

Agenda Item K.2.c
Supplemental Public Comment 2
September 2010

Subject: Longline
From: LaPazKD@aol.com
Date: Sat, 11 Sep 2010 12:50:50 -0400 (EDT)
To: Kit.Dahl@noaa.gov

Kit,

Attached are three documents. Two are letters from NMFS to the PFMC regarding the high-seas longline fishery prohibition. The last document is the letter, (July 16, 2010), I sent to the Council. I have inserted background information for the main points in the letter. The bold faced yellow highlighted text is the background information.

See you in Idaho,

Pete Dupuy

NMFSSWLtr-CloseSSLL.pdf	**Content-Type:** application/pdf **Content-Encoding:** base64

NMFSSWLtr-ReconsiderSSLL.pdf

NMFSSWLtr-ReconsiderSSLL.pdf	**Content-Type:** application/pdf **Content-Encoding:** base64

PFMCChangeSwordfishRegAnnotated.doc

PFMCChangeSwordfishRegAnnotated.doc	**Content-Type:** application/msword **Content-Encoding:** base64

July 16, 2010

Dave Ortmann, Chair,
Pacific Fishery Management Council
7700 NE Ambassador Pl, Suite 200
Portland, OR 97220-1384

Dear Mr. Ortmann,

I am writing to ask the Council to begin the process for modifying an existing HMS high-seas pelagic longline fishery regulation. **(HMS FMP section 8.3.4, Framework Process for Rulemaking Actions, lists: " to reduce conflict and provide for orderly fisheries; to allocate among domestic HMS fisheries; to address social or economic issues; to facilitate management of the fisheries; to meet goals and objectives of the FMP; and, to respond to changes in management of HMS in other areas of the Pacific; are all valid reasons for adopting framework measures. Additionally, gear restrictions is specifically listed as a type of measure authorized to be established, adjuster, or removed using the framework process.)** Of the provisions found under 50 CFR §660.712 (a), all provisions pertaining to the high-seas fishery are obsolete, especially those provisions limiting or prohibiting the directed take of swordfish. **(The Pacific Council's HMS FMP included a high-seas longline fishery east of 150 west longitude when it was submitted to NMFS for approval. This is reflected in the proposed rule to implement the HMS FMP that was published in the Federal Register on December 10, 2003. Under the proposed rule, the section regulating longline gear and fishing restrictions, 660.712(a)(1 through 10), allows for targeting swordfish, east of 150 degrees west longitude, with shallow-set longline gear.)**This regulation was originally implemented to insure that the Pacific Council's high-seas longline regulations were consistent with the West Pacific Council's high-seas longline regulations. **(NMFS disapproved the portion of the HMS FMP that included the high-seas longline fishery east of 150 west longitude. The final rule that implemented the HMS FMP was published in the Federal Register on April 7, 2004. Under the final rule, subsection 11 was added to section 660.712(a). Subsection 11 notes that the use of longline gear is subject to the provisions at 50 CFR part 223 (ESA regulations) prohibiting shallow sets to target swordfish east of 150 west longitude, and establishing that no more than 10 swordfish may be landed by a longline vessel if fishing in those waters. The proposed rule to implement the ESA prohibition against targeting swordfish with shallow-set longline gear, 223.206(d)(9)(i through viii), was published in the Federal Register on December 17, 2003 (the final rule was published on March 11, 2004). These restrictions were proposed by NMFS in order to protect sea turtles from shallow-set longline vessels targeting swordfish that are not operating under a western Pacific longline permit.)**

However, the conditions that once warranted such regulations no longer exist, **(In a March 31, 2004 letter from NMFS informing the Pacific Council that NMFS had approved the HMS FMP with the exception of the high-seas longline restrictions**

which were enacted under the ESA. NMFS also advised that shallow-set longline could be allowed if alternative longline gear and bait combinations were required. Use of circle hooks and mackerel type bait had proved to signigicantly reduce sea turtle interactions and consequent injury or mortality in other HMS longline fisheries.) and the West Pacific Council modified their longline fishing regulations to reflect current conditions and best longline fishing practices. **(Existing longline fishery restrictions under the Western Pacific Pelagics FEP, 50 CFR 665.33, which were enacted to allow shallow-set longline fishing and mitigate incidental sea turtle interactions, include the mandated use of circle hooks, (665.33(f)), and mackerel-type bait (665.33(g)).**

The original intent of section 660.712 was to provide a west coast counterpart to the West Pacific Council's longline regulations in order to effectuate consistent high-seas management of the Pacific U.S. longline fishery between the two Councils. **(Section 1.5, Purpose and Need for the HMS FMP, states, "An FMP provides a mechanism for collaboration with the other Pacific area councils to achieve more consistent management of fisheries which harvest stocks in common. In particular, there is a need to ensure that some or all restrictions on Hawaii-based longliners to protect turtles and sea birds also apply to West Coast based longliners.")**
The present regulatory inconsistency noted above thwarts this intent. Section 660.712 needs to be modified so that the West Pacific Council regulations are once again consistent with those of the Pacific Council.

Thank you for your attention to this matter.

Pete Dupuy

cc. Rodney McInnis, Regional Administrator, NMFS, SW Region

FILE

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802- 4213

F/SWR2:SF
1504-13-HMS-OB-040
~~150413~~SWR99SF13720

MAR 3 1 2004

Mr. Donald Hanson, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384

Dear Mr. Hanson:

I am writing to follow up on my February 4, 2004, letter informing you that, with the exception of one provision, I had approved the Pacific Fishery Management Council's proposed Fishery Management Plan for U.S. West Coast Fisheries for Highly Migratory Species (FMP). In that letter, I indicated that I disapproved the provision that would have allowed shallow-set longline fishing by west coast-based vessels targeting swordfish in waters beyond the U.S. exclusive economic zone (EEZ) east of 150° W. longitude. This was based on the result of consultations under section 7 of the Endangered Species Act (ESA) that determined that the levels of takes and mortalities that were projected to occur in the fishery under the Council's proposed management program would appreciably reduce the likelihood of survival and recovery of loggerhead sea turtles. I also indicated that National Marine Fisheries Service (NOAA Fisheries) was separately publishing rules under the authority of the ESA that would prohibit shallow sets in the waters east of 150° W. longitude. The ESA regulations have now been published and will be effective April 12, 2004. The final rule for the FMP is in process and should be published soon.

In my previous letter, I also noted that the Magnuson-Stevens Act (section 304(a)(1)) requires that, if an FMP is disapproved in part or in whole, the Council must be advised of actions it can take to address the FMP provisions that were disapproved. I provided some initial information in this regard. I would like to update that information in hopes that the Council will consider an FMP amendment that will ultimately eliminate the need for the ESA rule.

As I indicated in February, NOAA Fisheries believes that the results of research in the Atlantic Ocean demonstrates clearly that there are alternative gear and bait combinations available to longline fishing that significantly reduce sea turtle interactions and consequent injury to or mortality of sea turtles. The research concluded that encounters with leatherback and loggerhead turtles in the Atlantic Ocean can be reduced by 65 to 90 percent by switching the type of hook and bait from the traditional "J" style hook with squid to a large, circular hook with mackerel. In addition, the nature of hookings is less damaging as the large hooks are far less likely to be deeply swallowed and lethal. In addition, new de-hooking and release devices and techniques have been developed, further reducing the likelihood of major injury to or death of turtles. The Council has received copies of news releases and summary information on the results of the research. A copy of a powerpoint presentation on this research is enclosed. I believe this information will be very useful to the team and the advisory subpanel in

considering the possible use of gear restrictions as a tool for reducing sea turtle takes and mortality in the longline fishery. Second, I am pleased to inform you that NOAA Fisheries has approved proposed new regulations to govern the longline fishery for the Hawaii-based fleet. This proposed new strategy of the Western Pacific Fishery Management Council includes a combination of fleet effort limits, transferable individual vessel effort limits, a requirement to use circle hooks and mackerel bait, and numerical limits on annual sea turtle takes in the fishery based on observers' records. A section 7 consultation was completed on this proposal and concluded that the fishery, if operated under these controls, would not jeopardize the continued existence of any species of sea turtle. A copy of the Biological Opinion on this proposal has been provided to the Pacific Council under separate cover. The final rule implementing this action is enclosed.

I believe the Pacific Council now has information that provides a basis for developing alternatives that could allow longline fishing for swordfish without jeopardizing any ESA listed species. I recommend that the Council direct its management team to consider this information to develop and analyze alternative sets of comparable conservation and management measures under which the longline fishery off the West Coast might be able to target swordfish with low levels of marine turtle takes. This could include consideration of a longline limited entry program (as the Council has already directed the team to explore), a limit on overall longline fishing effort targeting swordfish by West Coast vessels, individual vessel effort limits, gear and bait requirements, time/area limits, turtle take limits, or other measures that would limit sea turtle mortality to low levels approximating those that had previously been found in the drift gillnet fishery not to result in jeopardy to any listed sea turtles. I commit the Southwest Region to work closely with the Council and its advisory bodies as well as to coordinate with the Pacific Islands Region and the Office of Protected Resources to the extent possible to ensure that the best scientific information available is used in developing and evaluating the potential impacts of alternative approaches.

Again, congratulations to the Council on developing this new FMP. I look forward to working closely with you and your staff and the states to implement this FMP, and will report on our progress as it occurs.

Sincerely,

Rodney R. McInnis

Rodney R. McInnis
Acting Regional Administrator

Enclosures

cc: F - W. Hogarth, Ph.D.
F/NWR - B. Lohn
GCSW - J. Feder
GCNW - E. Cooney
F/NWR - B. Robinson
F/PIR - S. Pooley, Ph.D.

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

F/SWR2:SF

FEB - 4 2004

Mr. Donald Hanson, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, Oregon 97220-1384

Dear Mr. Hanson:

I am pleased to inform you that, with the exception of one provision, I have approved the Pacific Fishery Management Council's proposed Fishery Management Plan for U.S. West Coast Highly Migratory Species (FMP). There is broad agreement that this FMP is a major step forward toward effective management of these important west coast fisheries and resources. Notwithstanding the provision disapproved, I compliment you and the Council on both the quality of the FMP and the open and collaborative process by which the FMP was developed.

The provision that I have disapproved would have allowed shallow-set longline fishing by west coast-based vessels targeting swordfish in waters beyond the U.S. exclusive economic zone (EEZ) east of 150° W. longitude. The FMP would prohibit longline fishing in the EEZ off the west coast, and would prohibit the longline fishery from making shallow sets to target swordfish sets in waters beyond the EEZ and west of 150° W. longitude. At the time the Council adopted the FMP, the Council had been provided with information about potential impacts of the fishery on endangered and threatened sea turtles if fishing shallow set longline fishing strategy were adopted and about the likelihood of FMP disapproval on this basis.

During review of the proposed FMP, the National Marine Fisheries Service (NOAA Fisheries) initiated consultations under section 7 of the Endangered Species Act (ESA) to determine if the levels of takes and mortalities that were projected to occur in the fishery under the Council's proposed management program would appreciably reduce the likelihood of survival and recovery of listed species of sea turtles. Shallow-set longline fishing has been shown to have high rates of interaction with sea turtles (especially loggerhead and leatherback sea turtles). Currently, all west coast longline vessels (approximately 20 vessels) fish in this manner. The Biological Opinion (BO) resulting from the consultation concluded that, if allowed to make shallow sets in the waters east of 150° W. longitude at recent effort levels, the longline fishery would take turtles at levels that would appreciably reduce the likelihood of survival and recovery of at least one species of sea turtle. Therefore, that provision has been disapproved as not being consistent with the ESA, meaning that the FMP does not comply with "other applicable law" (section 303(a)(1)(C) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act)). A copy of the BO will be provided to the Council under separate cover.

NOAA Fisheries has separately published (68 FR 70219, December 17, 2003) a proposed rule under the authority of the ESA that would prohibit shallow sets in the waters east of 150° W. longitude. This was published prior to action on the FMP to ensure that, if the review of the Council's FMP concluded that its proposed management program would be inadequate, then NOAA Fisheries would have corrective regulations in place until the Council could make the necessary changes to its management program. Under this approach, the ESA regulations could be implemented at the same time as the FMP implementing regulations if they were deemed necessary after the section 7 consultation and action on the proposed FMP. In fact, this rule is now deemed necessary. The BO concluded that the fisheries as they would operate under the conservation and management measures of the FMP, and the ESA companion rule would not jeopardize the continued existence of any species of sea turtle. NOAA Fisheries will therefore proceed to finalize this rule on the same time track as the final rule for the FMP.

The Magnuson-Stevens Act (section 304(a)(1)) requires that, if an FMP is disapproved in part or in whole, the Council must be advised of actions it can take to correct the FMP. The following information is provided to satisfy this requirement.

First, NOAA Fisheries is very pleased with the results of recent research in the Atlantic Ocean regarding the use of alternative gear and bait combinations in longline fishing to reduce sea turtle interactions and consequent injury or mortality to sea turtles. A copy of the news release summarizing the achievements of that research is enclosed. The research concluded that encounters with leatherback and loggerhead turtles in the Atlantic Ocean can be reduced by 65 to 90 percent by switching the type of hook and bait from the traditional "J" style hook with squid to a large, circular hook with mackerel. In addition, the nature of hookings is less damaging as the large hooks are far less likely to be deeply swallowed and lethal. In addition, new de-hooking and release devices and techniques have been developed, further reducing the likelihood of major injury to or death of turtles. NOAA Fisheries is actively promoting adoption of this new gear in the international arena given that this is a global problem. NOAA Fisheries also plans to undertake additional research into the use of this gear in longline tuna fishing, which also is known to have sea turtle interactions.

Second, in January 2004, NOAA Fisheries convened 17 experts in the areas of biology, veterinary medicine, anatomy/physiology, satellite telemetry, and longline gear deployment for a Workshop on Marine Turtle Longline Post-Interaction Mortality. These experts presented and discussed recent data available on the survival and mortality of sea turtles subsequent to being hooked by fishing gear. Based on the data gathered during that workshop, NOAA Fisheries revised its February 2001 post-hooking mortality criteria. The Southwest Region will work with its observer contractor to make sure that future observers collect more detailed interaction information to better support application of this new policy.

Third, new regulations to govern the longline fishery for the Hawaii-based fleet are needed by April 1, 2004, in response to a court decision. The Western Pacific Fishery Management Council has submitted a proposal (summary enclosed) that would allow shallow longline sets targeting

swordfish but that proposes to limit sea turtle takes and mortality through a combination of fleet effort limits, transferable vessel effort limits, a requirement to use circle hooks and mackerel bait, a limit on estimated sea turtle takes, in the fishery based on observer records, and other measures. This proposal is being reviewed by NOAA Fisheries, and a section 7 consultation is underway. I will advise the Pacific Council of the results of the consultation and NOAA Fisheries' action on this proposal.

I believe this information will be very useful to the Council in considering adjustments to its fishery management regime that can allow fishing without jeopardizing any ESA listed species. NOAA Fisheries' action on the Western Pacific Council's proposal has implications for potential approvability of similar approaches for the west coast longline fishery. I recommend that the Council direct its management team to review this information and to begin developing and analyzing alternative sets of comparable conservation and management measures under which the longline fishery off the west coast might be able to target swordfish with low levels of marine turtle takes. This could include consideration of limited longline fishing for swordfish with effort limits, gear and bait requirements, time/area limits, turtle take limits, or other measures that would limit sea turtle mortality to low levels approximating those that had previously been found in the drift gillnet fishery not to result in jeopardy to any listed sea turtles. I commit the Southwest Region to work closely with the Council and its advisory bodies as well as to coordinate with the Pacific Islands Region and the Office of Protected Resources to the extent possible to ensure that the best scientific information available is used in developing and evaluating the potential impacts of alternative approaches.

Again, congratulations to the Council on developing this new FMP. I look forward to working closely with you and your staff and the states to implement this FMP, and will report on our progress as it occurs.

Sincerely,

Rodney R McInnis

Rodney R. McInnis
Acting Regional Administrator

Enclosures
cc: F - W. Hogarth
F/NWR - B. Lohn
GCSW - J. Feder
GCNW - E. Cooney
F/NWR - B. Robinson
F/PIR - S. Pooley

RECOMMENDATIONS TO INTERNATIONAL FISHERY MANAGEMENT ORGANIZATIONS

At the June 2010 meeting, the Council made recommendations to U.S. delegations to the September 7-10 Western and Central Pacific Fishery Commission Northern Committee meeting (NC6) and the 81st Inter-American Tropical Tuna Commission (IATTC) meeting (September 27-October 1, 2010). Attachment 1 excerpts these recommendations from the June Decision Document. However, the Council reserved making additional recommendations for the IATTC delegation until the results of the latest stock assessments for eastern Pacific ocean (EPO) bigeye and yellowfin tunas became available. The IATTC Science Committee is scheduled to meet August 31-September 3, 2010, in La Jolla, California, to review these stock assessments.

Other meetings relevant to Pacific tuna Regional Fishery Management Organizations (RFMOs) occurred between the June and September Council meetings. Attachment 2 catalogues these meetings and provides links to organization websites, where meeting materials may be downloaded. The Tenth Meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) occurred July 21-26 in Victoria, British Columbia, and is of special note because the ISC is the science provider for the Northern Committee. Attachment 3 excerpts the conservation advice from the Plenary Report (***full report on CD-ROM/website***).

Supplemental reports and materials will be provided based on the results of the aforementioned meetings and other meetings listed in Attachment 2.

Council Action:

1. **Adopt Recommendations for U.S. Delegation to the Inter-American Tropical Tuna Commission.**

Reference Materials:

1. Agenda Item K.3.a, Attachment 1: Recommendations to International Fishery Management Organizations (Excerpted from June 2010 Council Decision Document).
2. Agenda Item K.3.a, Attachment 2: Meetings Relevant to Pacific Tuna RFMOs, June-September 2010.
3. Agenda Item K.3.a, Attachment 3: Report of the Tenth Meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean, Plenary Session; Excerpts (***full report on CD-ROM/website***).

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 Recommendations for U.S. Delegation to Inter-American Tropical Tuna Commission

PFMC
08/23/10

RECOMMENDATIONS TO INTERNATIONAL FISHERY MANAGEMENT ORGANIZATIONS (EXCERPTED FROM JUNE 2010 COUNCIL DECISION DOCUMENT)

The Council decided to postpone making recommendations for Inter-American Tropical Tuna Commission (IATTC) action on bigeye and yellowfin tuna until the September Council meeting when updated stock assessments will have been released.

They made the following recommendations for action in the IATTC and/or Western and Central Pacific Fishery Commission (WCPFC) forums.

- The U.S. delegation to the IATTC should develop a proposal for managing the purse seine fishery through a total allowable catch limit (TAC).
- The U.S. delegation to the WCPFC Northern Committee should propose a more effective and comprehensive bluefin tuna conservation measure, specifically to address juvenile mortality, for adoption by the WCPFC;
- The United States should pursue participation in the coordination meeting on bluefin tuna conservation between Japan, Mexico and the IATTC secretariat scheduled for August 30, and encourage the IATTC to move forward with a proposal for a bluefin tuna conservation measure.
- The U.S. should support proposals that would increase compliance with IATTC management measures, especially those related to illegal, unreported, and unregulated (IUU) fishing.
- The U.S. delegations to the IATTC and WCPFC should advocate for more comprehensive data reporting and collection by members of the IATTC and WCPFC.

The Council asked National Marine Fisheries Service Southwest Region to work with Pacific Islands Region Office to reexamine regulations related to vessel monitoring system requirements for vessels that have a WCPFC Area Endorsement on their HSFCA permit in order to lessen their financial impact on west coast albacore vessels.

MEETINGS RELEVANT TO PACIFIC TUNA RFMOS, JUNE-SEPTEMBER 2010

Joint Tuna RFMO Meetings

- Joint Tuna RFMOs, International Workshop on improvement, harmonization and compatibility of monitoring, control and surveillance measures; June 3-5; Barcelona, Spain.
- Joint Tuna RFMOs, International Workshop on tuna RFMO management issues relating to by-catch and to call on RFMOs to avoid duplication of work on this issue; June 23-25; Brisbane, Australia.
- Joint Tuna RFMOs, International Workshop on RFMO management of tuna fisheries; June 28-July 1; Brisbane, Australia.

Meeting reports available at http://www.tuna-org.org/meetings2010.htm

International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC)

- Plenary Meeting; July 21-26; Victoria, British Columbia.
- Working Group meetings (Billfish, Albacore, Bluefin, Bycatch, Shark Taskforce, Statistics); July 6-19; Nanaimo and Victoria, British Columbia.

Plenary and Working Group Reports available at
http://isc.ac.affrc.go.jp/reports/isc/isc10_reports.html

Sixth WCPFC Scientific Committee Meeting; August 10-19, 2010; Nukualofa, Tonga; materials and meeting report at http://www.wcpfc.int/meetings/2010/6th-regular-session-scientific-committee

WCPFC Northern Committee

- Workshop on biological reference points for NC stocks; September 6, 2010; Fukuoka, Japan; note that the ISC has produced a report, Biological Reference Points for Tuna and Tuna-Like Species in the North Pacific Ocean, to support these discussions, available at http://isc.ac.affrc.go.jp/pdf/ISC10pdf/Plenary_4_Biological%20Reference%20Points_ISC10.pdf.
- 6th Regular Session of the Northern Committee, September 6-10; Fukuoka, Japan; meeting materials and reports available at http://www.wcpfc.int/meetings/2010/6th-regular-session-northern-committee.

Inter-American Tropical Tuna Commission (IATTC)

- Technical meeting on sharks; August 30; La Jolla, California.
- Consultation on Pacific bluefin tuna; August 30; La Jolla, California.
- 1st Meeting of the Scientific Advisory Committee; August 31- September 3; La Jolla, California.

Meeting materials available at http://www.iattc.org/Meetings2010/Technical-Meeting-on-Sharks-2010ENG.htm.

PFMC
08/23/10

REPORT OF THE TENTH MEETING OF THE INTERNATIONAL SCIENTIFIC COMMITTEE FOR TUNA AND TUNA-LIKE SPECIES IN THE NORTH PACIFIC OCEAN

PLENARY SESSION

21-26 July 2010
Victoria, B.C.
Canada

TABLE OF CONTENTS

REPORT OF THE TENTH MEETING OF THE INTERNATIONAL SCIENTIFIC COMMITTEE FOR TUNA AND TUNA-LIKE SPECIES IN THE NORTH PACIFIC OCEAN

PLENARY SESSION

21-26 July 2010
Victoria, B.C., Canada

LIST OF TABLES

LIST OF ANNEXES

REPORT OF THE TENTH MEETING OF THE INTERNATIONAL SCIENTIFIC COMMITTEE FOR TUNA AND TUNA-LIKE SPECIES IN THE NORTH PACIFIC OCEAN

PLENARY SESSION

21-26 July 2010
Victoria, B.C., Canada

Highlights of the ISC10 Plenary Meeting

The 10th ISC Plenary, held in Victoria, B.C., Canada from 21-26 July 2010 was attended by members from Canada, Chinese Taipei, Japan, Korea, Mexico and the United States and the North Pacific Maine Science Organization (PICES). The Plenary reviewed results and conclusions, which were based on new data and updated analyses, of the billfish and Pacific bluefin tuna working groups. The Plenary endorsed the findings that the eastern Pacific stock of swordfish is healthy and in good condition and that the fishing mortality rate of Pacific bluefin tuna, particularly juveniles, needs to be decreased. Regarding albacore, striped marlin and the western and central North Pacific stock of swordfish, the Plenary maintained the conservation advice of ISC9 with minor changes for clarification. A special seminar on oceanographic and low trophic-level habitat in the North Pacific Ocean was held. The Plenary agreed to dissolve its bycatch working group and create a shark working group in order to implement the recommendations of its shark task force. The recommendation of the billfish working group to postpone convening a world blue marlin symposium was also endorsed. The Albacore, Pacific bluefin, and Billfish Working Groups provided information on candidate biological reference points for northern stocks of highly migratory species in the North Pacific Ocean which the Plenary endorsed. These will be forwarded for consideration at the 6th regular session of the Northern Committee of the Western and Central Pacific Fisheries Commission in September 2010. The ISC workplan for 2010-2011 includes completing a new stock assessment for albacore and striped marlin by ISC11, continuing preparations for a Pacific bluefin tuna and blue marlin stock assessments in 2012, implementing improved database and website management, and updating and clarifying ISC operations procedures. After five years serving as Chairman of ISC, Gary Sakagawa stepped down. The Plenary elected Gerard DiNardo to serve as Chairman for 2010-2013. The next Plenary will be held in the United States in July 2011.

1 INTRODUCTION AND OPENING OF THE MEETING

1.1 Introduction

The ISC was established in 1995 through an intergovernmental agreement between Japan and the United States (US). Since its establishment and first meeting in 1996, the ISC has undergone a

number of changes to its charter and name (from the Interim Scientific Committee to the International Scientific Committee) and has adopted a number of guidelines for its operations. The two main goals of the ISC are (1) to enhance scientific research and cooperation for conservation and rational utilization of the species of tuna and tuna-like fishes which inhabit the North Pacific Ocean during a part or all of their life cycle; and (2) to establish the scientific groundwork for the conservation and rational utilization of these species in this region. The Committee is made up of voting Members from coastal states and fishing entities of the region and coastal states and fishing entities with vessels fishing for highly migratory species in the region, and non-voting members from relevant intergovernmental fishery and marine science organizations, recognized by all voting Members.

The ISC provides scientific advice on the stocks and fisheries of tuna and tuna-like species in the North Pacific Ocean to the Member governments and regional fisheries management organizations. Fishery data tabulated by ISC members and peer-reviewed by the species and statistics Working Groups form the basis for research conducted by the ISC. Although some data for the most recent years are incomplete and provisional, the total landed amount estimated from available data and information is in excess of 500,000 metric tons (t) annually and dominated by the tropical tuna species. In 2008, the estimated catch of priority species monitored by the ISC was 68,500 metric tons (t) of albacore tuna (ALB, *Thunnus alalunga),* 24,200 t of Pacific bluefin tuna (PBF, *T. Orientalis),* 9,400 t of swordfish (SWO, *Xiphias gladius*), and 3,300 t of striped marlin (MLS, *Kajikia audax).* The total estimated catch for these four species is 105,400 t, or a decrease of about 19% from the 2007 total catch (estimated 130,100 t). This decrease was largely the result of a sharp reduction in albacore catch from 92,700 t in 2007. Catches of priority stocks throughout their ranges are shown in Tables 1-4.

1.2 Opening of the Meeting

The Tenth Plenary session of the ISC (ISC10) was convened in Victoria, B.C., Canada at 0830 on 21 July 2010 by the ISC Chairman, G. Sakagawa. A role call confirmed the presence of delegates from Canada, Chinese Taipei, Japan, Korea, Mexico, the USA, and the North Pacific Marine Science Organization (PICES) (*Annex 1*). Representatives of the Western and Central Pacific Fisheries Commission (WCPFC) attended as Observers. ISC members China, the Secretariat for the Pacific Community (SPC), and the Food and Agriculture Organization (FAO), as well as organizations with significant interest including the Inter-American Tropical Tuna Commission (IATTC), did not attend the Plenary.

Dr. Laura Richards, Regional Director Science, Pacific Region, Fisheries and Oceans Canada, delivered the opening address. She welcomed delegates to the Plenary session on behalf of Canada and the Canadian delegation, and noted that this is first ISC Plenary meeting held in Canada. Hosting the meeting in Canada demonstrates Canada's commitment to the ISC and to the scientific process it supports. She affirmed that Canada is committed to ensuring that the management of highly migratory species is based on the best scientific advice and follows the precautionary approach. Dr. Richards wished the delegates a successful and productive meeting.

2 ADOPTION OF AGENDA

The agenda for the session was considered (*Annex 2*). Minor changes were made and the agenda was adopted. M. Stocker was assigned lead rapporteur duties. A list of meeting documents is contained in *Annex 3*.

3 DELEGATION REPORTS ON FISHERY MONITORING, DATA COLLECTION AND RESEARCH

The ISC Chairman noted that delegation reports were submitted by Canada, Chinese Taipei, Japan, Korea, Mexico and the United States.

3.1 Canada

J. Holmes presented a summary of Category I, II, and III data from the Canadian North Pacific albacore troll fishery in 2009 *(ISC/10/PLENARY/10)*. The Canadian fleet of 135 vessels operated primarily within the coastal waters of the United States and Canada and in adjacent high seas areas; all catch and effort occurred east of 150°W. Preliminary estimates of North Pacific albacore catch and effort in 2009 are 5,685 t and 6,631 vessel days (v-d), respectively. These figures represent 4% and 13% increases in catch and effort relative to 2008, with approximately 92% of the catch occurring within the US EEZ, 7% in the Canadian EEZ, and 1% on the high seas. Bycatch of other tuna or billfish species, sharks, sea turtles and sea birds was negligible. Albacore in the Canadian catch ranged from 50 cm (2.63 kg) to 90 cm (15.25 kg) in fork length (FL, N = 11,717). Only one mode at 64-66 cm FL (5.50-5.75 kg) was present in the length frequency data corresponding to 3-yr old fish, although there was a broad shoulder to the right consisting of 4-yr old fish. Canadian scientists are collaborating with colleagues from the U.S. in a pilot project aging juvenile albacore with otoliths and dorsal fin rays and are undertaking research to develop tools to forecast albacore availability in temperate waters based on sea surface temperature and ocean productivity.

3.2 Chinese Taipei

The delegation report for Chinese Taipei was presented by S.L. Lin (*ISC/10/PLENARY/11*). Taiwanese tuna fisheries are comprised of two major fisheries, longline, and purse seine fisheries, and other small-scale fisheries, such as harpoon, set net, and gill net in the North Pacific Ocean (North of the equator). Longline and purse seine fisheries produce around 99% of the total tuna and billfish catch of Taiwanese fisheries.

The total catch of tunas and billfish (including swordfish, striped marlin, blue marlin (*Makaira mazara*), black marlin (*M. indica*), and sailfish (*Istiophorus* spp.)) for the longline fishery in the North Pacific Ocean was 31,983 t in 2009. For the purse seine fishery, the total catch was 192,075 t caught by 33 vessels in the Pacific Ocean in 2009. In addition, other small-scale fisheries, such as harpoon, set net and gill net may also catch tunas and tuna-like species in the Taiwanese coastal and offshore waters. The total catch of tunas and tuna-like species of these fisheries was estimated to be about 1,523 t, consisting of harpoon (437 t), set net (630 t) and gill net (456 t) in 2009.

For sustainable use of fishery resources, Chinese Taipei imposed a fleet size reduction program

on its large-scale tuna longline (LTLL) vessels from 2005 to 2007. Through this program, 32 large-scale tuna longline vessels were reduced in the Pacific Ocean during 2005 - 2007. Thereafter, due to high fuel price and low fish prices, the number of active LTLL vessels declined continuously. In 2008, the active vessels were 84, and in 2009, the number further reduced to 75.

For LTLL, Category I data are estimated from weekly report and commercial data. Several sources of commercial information were available including traders, Taiwan Tuna Association, certified weight reports provided by the Organization for the Promotion of Responsible Tuna Fisheries and others. Categories II and III data were all compiled based on logbook data. Fishers are required to measure the length of the first 30 fish caught each day. For the small-scale tuna longline (STLL) fleet, Category I data were based on landings and auction records from local fishing markets. For those vessels stationed at foreign ports, the total catches were estimated from fishing vessel activity reports and import statistics for Japanese markets. Since 1997, logbooks of STLL have been collected, and port sampling at domestic fish markets has been conducted. To improve the recovery rate of logbooks, the (Taiwan) Fisheries Agency launched in April 2007 a data improving program, dispatching staff to collect logbooks, to interview fishers in order to obtain fisheries information, and to conduct a size sampling program at main domestic fishing ports. Through this program, the logbook recovery rate was improved to 23% in 2009. For the purse seine fishery, Category I and Category II data were obtained from logbooks.

For improving stock assessment of species in the North Pacific Ocean, Chinese Taipei has conducted the following research:

- Age and growth study for albacore;
- Research on the catch at size/age and CPUE standardization of North Pacific albacore;
- Research on the age and growth and stock assessment of Pacific bluefin tuna;
- Studies on population dynamics and stock assessments for swordfish, sailfish, and blue marlin;
- Studies on the age and growth, and reproductive biology of black marlin and striped marlin; and
- Billfish tagging program.

Discussion

Plenary requested information on skipjack tuna catch rates by the purse-seine fishery. S.L. Lin responded that fishers have not reported unusual changes in skipjack tuna catch rates.

Members asked about differences in size distributions of albacore and swordfish catch between the LTLL fleet and the STLL fleet. Lin responded that the LTLL fleet catches smaller albacore in the northern part of the North Pacific Ocean than the STLL fleet, which mainly operates in the tropical areas and catches larger fish. For swordfish size distribution, because the lower jaw of swordfish is generally cut off on board the STLL fleet, eye-fork length was measured by port samplers. For the LTLL fleet, swordfish fork length was measured by fishers on board the vessels.

3.3 Japan

H. Nakano presented the delegation report for Japan (*ISC/10/PLENARY/12*). Japanese North Pacific tuna fisheries consist of three major fisheries, i.e., longline, purse seine, and pole-and-line. In addition, there are miscellaneous fisheries such as troll, drift net, and set net (trap) fisheries. These fisheries account for around 90% of the total tuna catch of Japanese fisheries in recent years. The total landing of tunas (excluding skipjack tuna) by Japanese fisheries in the North Pacific Ocean was 98,000 t in 2008 and 109,904 t in 2009 (117% of the 2008 catch). The total landing of swordfish and billfishes (striped marlin, blue marlin and black marlin) was 12,506 t in 2008 and 10,753 t in 2009 (79% of the 2008 catch). The landing of skipjack tuna was 238,000 t in 2008 and 187,418 t in 2009 (86% of the 2008 catch). In addition to the descriptions on fisheries, a brief review was given on the Japanese research activities on tuna and tuna-like species in the Pacific Ocean in 2009.

Nakano also reported on the official announcement released on May 11, 2010 by the (Japan) Ministry of Agriculture, Forestry and Fisheries (MAFF) on actions it is preparing to take towards effective conservation and management for PBF. The announcement indicates that the MAFF will promote conservation and management of Pacific buefin tuna by reducing the juvenile catch in order to improve future catch of bigger fish. This necessary measure will ensure that the spawning stock biomass (SSB) of Pacific bluefin tuna is maintained within the appropriate range and will prevent the SSB from dropping below the historically lowest level observed. MAFF intends to influence the direction of conservation and management by implementing actions regarding (1) domestic fisheries management, (2) international actions, and (3) research activities, beginning this fiscal year. It will also consider introducing conservation and management measures, including improved effort registration, catch reporting, a closure period, size limit, individual quota system, and management system for aquaculture, depending on the fisheries.

3.4 Korea

Z.G. Kim presented the delegation report for Korea (*ISC/10/PLENARY/13*). Korea has two fisheries which engage in fishing tuna and tuna-like species in the North Pacific Ocean, the distant-water tuna longline and the distant-water tuna purse seine. The number of fishing vessels operating in the Pacific Ocean was 113 longliners and 28 purse seiners in 2009. The total tuna catch in the North Pacific Ocean in 2009 was 62,370 t, of which 6,362 t was landed by the longline fishery and 46,008 t by the purse seine fishery. The catch of swordfish and billfishes (striped marlin, blue marlin, black marlin and sailfish) was 2,257 t, caught exclusively by longline.

The longline catch ranged from 60 to 34,080 t from 1972 to 2009, with bigeye tuna (*Thunnus obesus*), yellowfin tuna (*T. albacares*), swordfish and billfishes making up 66.3%, 26.5%, 18.0% and 11.2%, respectively. The bigeye tuna catch showed an increase since the 1980s, while the yellowfin tuna showed a slightly decreasing trend since the mid-1990s. Swordfish and billfish catches stayed at a low level with a slightly increasing trend.

The catch of the purse seine fleet ranged from 550 to 106,394 t from 1980 to 2009, with yellowfin tuna and skipjack tuna making up 78.1% and 21.9%, respectively. The catch of skipjack tuna and yellowfin tuna has had a decreasing trend in recent years. The sharp decline in the purse seine catch since 2006 was attributed to the shifting of fishing grounds to the south Pacific Ocean.

There are 28 different fishing gears that take tuna species as bycatch. In 2009, 96% of bycatch came from offshore purse seine gear and 0.6% came from set nets. The majority of species were bullet tuna (*Auxis rochei*) and the others are not known except PBF because of good market prices. The PBF catch was 794 t, which was half of the 2008 catch, and the number of offshore purse seine vessels has gradually decreased from 32 in 2002 to 27 in 2009. The PBF bycatch mainly occurred in southern Korean waters, especially around Jeju Island. Almost all catches of PBF were juvenile (<150 cm) and the number of larger-sized individuals has recently increased. For example, mean fork length changed from 33.6 cm in 2000 to 57.8 cm in 2009.

Fattening in holding pens of juvenile PBF has been practiced by two fishing companies in Korea since 2007. A total of 3,370 juveniles (2-50 kg per fish) have been collected from set nets for this purpose.

Since 2007, the National Fisheries Research and Development Institute (NFRDI) has been carrying out studies on pen rearing and associated research for PBF in the Southwest Sea Fisheries Research Institute and the Subtropical Fisheries Research Center. In 2010, NFRDI implemented a five-year research project on the biology and ecology of PBF in Korean waters. It monitored 16 fishing trips with nine international observers onboard the Korean distant-water fishing vessels to monitor catch of target and bycatch species. To improve data collection, observer coverage onboard distant-water fishing fleets and landing sites will be increased and a data collection strategy will be updated for landing ports and canneries and for domestic fisheries taking tuna species in Korean waters. NFRDI completed all tasks requested by ISC9 and NC5 with respect to data matters.

Discussion

A number of questions were raised with regard to data reporting including:

The catches in the ALBWG and BILLWG catch tables and the delegation report differ. It was explained that the catch statistics were updated by extracting the North Pacific Ocean catch from the total for the Pacific Ocean; the changes were minor and reported to the STATWG just after the last ALB and BILL working group meetings. The catch in the national report is the same as that reported to the STATWG.

It was clarified that there are no observers on board the offshore purse-seine fleet. In Korea, domestic fisheries and distant-water fisheries are under different management and control regimes. Accordingly, the domestic offshore purse seine fishery is not monitored using an onboard observer system but by 70 observers at 118 landing sites in 2010.

A lack of catch statistics on the PBF set net fishery was noted and clarified. As described in the delegation report, the majority of tuna caught in Korean waters by coastal and offshore fisheries is bullet tuna, 0.6% of which are caught by set nets. PBF catches are minor and data are not available, especially for set nets.

Kim agreed to investigate remaining matters with regard to availability of Korean data.

3.5 Mexico

M. Dreyfus presented the delegation report for Mexico *(ISC/10/PLENARY/14)*. The purse seine fishery began in Baja California at the start of the 20th Century, although major development is related to the implementation of the EEZ in the late 1970s. Most of the catch is yellowfin tuna (YFT) and skipjack tuna (SKJ) is second in terms of volume. Since 1985, catches have been above 100,000 t. A decrease in catches in 2006 and 2007 due to lower YFT biomass was in part compensated with SKJ and black skipjack (*Euthynnus lineatus*). In 2009, total landings were 123,750 t. The other catch of importance is PBF directed to pen-rearing activities. Record catches above 8,000 t were recorded in 2004 and 2006; recent catches are just above 3,000 t (2009).

Mainly purse seiners are involved in tuna fishing and target mostly tropical tunas. The carrying capacity of the purse seine fleet has been quite stable for more than 20 years. In 2009, 46 active purse seine vessels were registered and only six participated in catching PBF. Catch of ALB by purse seiners is sporadic and very small, only 17 t in 2009. Most of the ALB catch is made in Mexican waters and by U.S. sport fishermen. SWO is caught off the Baja California peninsula and by a Mexican fleet that targets both sharks and SWO. A record catch of 3,601 t of SWO was recorded in 1998 by this fleet. In 2009 the catch was only 84 t. This fleet uses longline and drift gill net gears.

In Mexico, all billfishes, except for SWO, are reserved for the sport fishery and for mainly catch-and-release. There are reports 75% to more than 90% of fish caught by this fishery are released.

Information on all billfishes caught by the fishery for 2009 will be updated for the next BILLWG and Plenary meetings.

Discussion

A question was raised regarding why in some years there are high catches inside the Gulf of California. The explanation by M. Dreyfus was that in 2009, for example, there were high catches of YFT and SKJ due to above average (i.e., warmer) water temperatures.

3.6 United States

U. Varanasi and S. Kohin presented the United States (U.S.) delegation report on fisheries statistics and research (*ISC/10/PLENARY/15*). Various U.S. fisheries harvest tuna and tuna-like species in the North Pacific Ocean. Purse seine, troll and longline fisheries operate both in coastal waters and on the high seas. Small-scale gill net, harpoon, and pole-and-line fisheries and commercial and recreational troll and handline fisheries usually operate in coastal waters. The total catch U.S. for all highly migratory species (HMS) fisheries in the North Pacific Ocean increased from approximately 44,000 t in 2008 to approximately 70,000 t in 2009. The increase was largely due to the increase in catch of skipjack tuna in the North Pacific portion of the Western and Central Pacific Ocean purse seine fisheries from approximately 14,000 t in 2008 to 39,000 t in 2009. In the EPO purse seine fishery that operated in the U.S. EEZ, there was an increase in catch of bonito (*Sarda chiliensis*) from 603 t in 2008 to 2,132 t in 2009 and in PBF from zero tons in 2008 to 410 t in 2009. Regarding fisheries data management, improvements now enable differentiation of pole-and-line catches of ALB from troll catches.

U.S. government researchers at the NOAA National Marine Fisheries Service (NMFS) Southwest and Pacific Islands Fisheries Science Centers (in La Jolla, California and Honolulu, Hawaii, respectively) conduct research on tunas, billfishes, sharks, bycatch and HMS fisheries in the North Pacific. Topics of study include fishery monitoring, socio-economics, life history, oceanography, bycatch mitigation, fishery-independent surveys and stock assessment. Thirty manuscripts were published in the past year on studies related to ISC objectives. Highlights of research include studies of SWO stock structure using tagging, otolith microchemistry and genetics. The tagging studies reveal details of habitat utilization and movements with respect to physical oceanographic features. For ALB, the U.S. is conducting ongoing archival tagging in the northeast Pacific Ocean and has also initiated a biological sampling program for otoliths, gonads, DNA samples and stomachs. Objectives are to understand more about ALB stock structure for assessments, study age and growth, and link ALB distribution to oceanographic conditions and prey. NMFS has been building an archive of genetic samples for highly migratory species that now includes over 2000 samples from many species collected Pacific-wide. Recent genetic analyses suggest stock differentiation of shortfin mako shark (*Isurus oxyrinchus*) between the north and south Pacific Ocean as well as between the southeast and southwest Pacific Ocean. Extensive work on stock assessments continues both within and outside of the ISC forum. Significant research on bycatch includes a number of studies to estimate post-release survival of several pelagic shark species and to examine the efficacy of rare-earth metals as shark deterrents. Statistical analyses are being conducted to estimate incidental take of sea turtles, seabirds, and marine mammals in the Hawaii pelagic longline fisheries.

Discussion

Several specific technical points were clarified by the U.S. in response to questions arising during the discussion.

Figure 5 of the U.S. delegation report showed some unlikely data for the sizes of skipjack tuna sampled in the Hawaii troll and handline fishery. The figure will be corrected and resubmitted.

J. Holmes asked how the diet studies are being conducted since, because in their experience, most ALB regurgitate upon capture. S. Kohin explained that the fish studied were mostly collected by rod and reel in the recreational fishery and that the incidence of regurgitation for fish caught using that gear is lower than for fish caught by trolling.

When asked about the cause of the increase in the northern WCPO skipjack tuna catch, U. Varanasi responded that it is under investigation, but that there was a small increase in the number of vessels participating in that area and fishery in 2009.

4 REPORT OF THE ISC CHAIRMAN

G. Sakagawa presented the ISC Chairman's report. The past year was busy for ISC and spent working on preparations for new stock assessments for ALB and MLS in 2011, and PBF in 2012. Progress was made on action items, including:

1. Investigation of SWO stock structure issues
2. Development of advice on potential Biological Reference Points
3. Compilation of a catalogue and inventory of the ISC database
4. Development of a new user-friendly ISC website, and
5. Hiring of a Webmaster and a Database Administrator

Nine intercessional workshops were held to facilitate collaboration among Member scientists in implementing ISC work plans, completing special assignments and coordinating research on the stocks.

At the conclusion of the 10th meeting of the ISC, G. Sakagawa will have completed five years of service as Chairman and will be stepping down to allow another colleague to lead the organization. The direction of ISC is clear. That is, achieving the objectives stated in the charter and contributing relevant science-based information for shaping policies that allow for conservation, sustainable fisheries and healthy HMS stocks. Continuation in this direction and maintaining relevance, however, will require continued vigilance to avoid diluting the scientific information and interpretation with fishery policy considerations and arguments. Furthermore, all aspects of the organization, especially the operating framework, need to be reviewed from time to time and adjustments adopted to promote efficiency and effectiveness in the operations and continued relevance of ISC's advice.

The ISC Chairman thanked his colleagues who have worked on ISC tasks through the years and who have supported ISC and him in advancing the objectives and purpose of the organization.

He acknowledged the service of M. Dreyfus, Vice-Chairman, for support and insightful advice, and gave special thanks and appreciation to the Chairmen of the Working Groups, namely S.K. Chang, G. DiNardo, J. Holmes and Y. Takeuchi, who provided unselfish leadership in guiding the work of the Working Groups and provided frank advice on all aspects of ISC responsibilities. He acknowledged the professional assistance of his staff for their dedicated service to ISC and for assistance in completing tasks assigned to the ISC Chairman. He thanked all for contributing to another successful year for ISC and for the support, service and memorable and personal friendship provided during the past five years. He trusts all will continue to support the work of the ISC and the needs of the next ISC Chairperson.

5 INTERACTION WITH REGIONAL ORGANIZATIONS

5.1 IATTC-ISC Memorandum of Cooperation (MOC)

In introducing this item, the ISC Chairman explained that agreed-upon changes to the draft MOC have been completed and that he had signed the MOC. The document is now with the IATTC Secretariat for signing.

The MOC was drafted to address the need to identify a mechanism to allow IATTC to participate in all of the ISC meetings without having to apply for observer status on a case-by-case basis. He noted that the involvement of IATTC in ISC stock assessments is critical to ISC stock assessments given the IATTC's important role in managing stocks in the North Pacific.

5.2 Interactions between ISC and PICES

5.2.1 Report from the Executive Secretary of PICES

A. Bychkov, Executive Secretary of PICES, provided a report to the Plenary. On behalf of PICES, he thanked the ISC for inviting PICES to participate at ISC10. PICES is an intergovernmental scientific organization established by the international convention in 1992 in order to promote and coordinate marine research in the North Pacific and adjacent seas. Current member countries are Canada, Japan, People's Republic of China, Republic of Korea, Russian Federation and the United States of America. Goals are to (1) advance scientific knowledge and capacity available for the member countries, including information on human activities affecting, and affected by marine ecosystems, and (2) provide a mechanism for collaboration among scientists in addressing timely and critical scientific questions. In less than 20 years since its establishment, PICES became a major forum for marine science in the North Pacific.

PICES just initiated a new ambitious integrative science program called FUTURE (**F**orecasting and **U**nderstanding **T**rends, **U**ncertainty and **R**esponses of North Pacific Marine **E**cosystems) to be undertaken to understand how marine ecosystems in the North Pacific respond to climate change and human activities, to forecast ecosystem status based on a contemporary understanding of how nature functions, and to communicate new insights to its members, governments, stakeholders and the public. This will be one of the highest priority activities of PICES for the next decade.

Another high priority PICES activity is developing a comprehensive overview of the status and trends of marine ecosystems in the North Pacific Ocean and its marginal seas. ISC contributed a chapter on tuna to the first North Pacific Ecosystem Status Report, and your scientists provided relevant information for the second report. PICES invites continuing involvement of ISC in this project.

In 2008, a joint PICES/ICES Working Group on *Forecasting Climate Change Impacts on Fish and Shellfish* was established to promote and coordinate research on the potential impact of climate change on marine ecosystems and to develop frameworks and methodologies for forecasting the impacts of climate change on marine ecosystems. The culmination of the Working Group's effort was a very successful international symposium convened in April 2010, in Sendai, Japan. PICES is planning a Theme Session entitled "*Climate Change Effects on Fisheries: Physics-Fish-Markets*", to be convened at the Second PICES/ICES/IOC Symposium on "*Effects of Climate Change on the World's Oceans*". This symposium will be held from 14–18 May 2012, in Yeosu (Korea), as one of the official events related to the World Ocean Expo-2012. PICES invites ISC to join the symposium as a co-sponsor for this session.

The PICES Nineteenth Annual Meeting will be held from 22–31 October 2010, in Portland, Oregon, U.S.A., under the theme "*North Pacific Ecosystems Today, and Challenges to Understanding and Forecasting Change*." A number of topic sessions and workshops in the program are directly relevant to various activities of ISC, especially such Topic Sessions as "*Impact of climate variability on marine ecosystems: Understanding functional responses to facilitate forecasting*" and "*Identifying vulnerable marine ecosystems in the North Pacific*.

Discussion

A question regarding how PICES results are used by countries in practical ways was raised. A. Bychkov indicated that PICES considers requests for scientific advice from member countries, for example the U.S. requested advice on climate regime shifts on fisheries in the North Pacific Ocean. For the most part, however, PICES produces expert reports on new and ongoing issues in the North Pacific Ocean. A recent example is the report on North Pacific trends in ocean conditions.

5.2.2 Report of the 2009 PICES meeting

G. DiNardo reported on the proceedings of the eighteenth annual meeting of PICES (PICES-2009) convened from 23 October - 1 Novemebr 2009 in Jeju, Republic of Korea. The theme for PICES-2009 was "*Understanding ecosystem dynamics and pursuing ecosystem approaches to management.*" ISC was invited by the PICES Executive Secretary to attend the meeting as an observer. The invitation was discussed at ISC9 and G. DiNardo was indentified to attend and represent the ISC. The ISC Chairman also tasked DiNardo with identifying current PICES activities that might hold benefit for ISC work.

DiNardo participated in the meeting and also prepared a poster on ISC activities for that meeting. The poster delineated the goals, objectives and operations of ISC and generated significant interest by participants. PICES activities that might be of interest to ISC include:

- Characterizing changes in oceanographic conditions and understanding causal mechanisms;
- Development of environmental time series;
- Development of bioeconomic reference points.

5.2.3 Invitation to 2010 PICES meeting

The ISC Chairman noted receipt of an invitation (ISC/10/PLENARY/03) for ISC to participate in the annual meeting of PICES to be held in Portland, Oregon, U.S.A. in 22-31 October 2010. In response to the request, the ISC Chairman appointed J.B. Lee to represent ISC at the 2010 PICES meeting. This nomination was accepted by the Plenary. Lee will attend and report any noteworthy information and opportunities for collaboration back to the Plenary at the ISC11 meeting.

5.3 Interactions between ISC and WCPFC

The ISC Chairman asked S.-K. Soh, WCPFC Observer, to report on general matters of interactions between ISC and WCPFC. Soh provided the following report on behalf of the WCPFC:

The sixth Regular Session of the WCPFC Scientific Committee will be held at Fa'onelua Convention Centre in Nuku'alofa, Tonga, from 10 (Tuesday) to 19 (Thursday) August 2010. Over 120 scientists, fishery officers and observers are expected to attend from 25 members, seven participating territories, seven cooperating non-members and various observers such as ACAP, Birdlife International, FAO, FFA, IATTC, ISC, ISSF, IUCN-OCEANIA, SPC, Greenpeace, and tuna industries and associations. Matters to be considered include: a review of the fisheries in the WCPO and EPO, a review of stock assessment of bigeye and skipjack tuna, bycatch mitigation issues, data and data gaps, a work program for 2011-2013, etc.

The WCPFC has a contract with the SPC for the provision of science services, which include: data management, statistical analyses and related services, stock assessment and related analytical services, management analyses and performance of measures, ecological risk assessment, etc.

Collection of reliable data is a priority objective of the WCPFC's science. Indonesian and Philippine waters are known to produce about 25% of the total tuna catch in the WCPFC Convention Area, but data provision from that area has been insufficient and thus identified as one of the biggest sources of uncertainty in stock assessments. In order to address this data gap, the WCPFC has been conducting the Indonesia and Philippines Data Collection Project (IPDCP) funded by Members through voluntary contributions. Following a request from the IPDCP Project Steering Committee, the Secretariat prepared a funding proposal for the Global Environment Facility (GEF) to support a long-term project to complement the IPDCP – including extending project activities to Vietnam. The project proposal was accepted by the GEF Secretariat in late 2007 with a three-year budget of around US$1 million for three countries. The project was initiated on 6 January 2010, focusing on establishing a system to monitor, data

enhancement and fishery assessment, and enhancing policy, institutional strengthening and management of tuna fisheries of the three countries. The Secretariat is coordinating the 2nd phase of the full project now. This project is managed by the WCPFC's Science Manager.

With regard to data issues between WCPFC and ISC, the Scientific Committee at SC5 in 2009 recommended that the ISC and the WCPFC Secretariat establish a mechanism for the periodic exchange of data to address gaps in the data for North Pacific stocks. The WCPFC Secretariat proposes two options to provide such a mechanism: one through establishing a Memorandum of Cooperation on the Exchange and Release of Data between WCPFC and ISC, and the other through convening an Annual Consultation Meeting between WCPFC and ISC. These options will be considered at the up-coming SC6 and SC will seek further comments from ISC on the proposed mechanism.

6 REPORTS OF WORKING GROUPS AND REVIEW OF ASSIGNMENTS

6.1 Albacore

J. Holmes, Chairman of the ALBWG, reported on the activities of the ALBWG over the past year. The Working Group met twice during the past year: a regular meeting held 20-26 April 2010 in Shimizu, Japan (*Annex 6*), and an update meeting held 12-13 July 2010 in Victoria, Canada (*Annex 9*). The primary focus of the April 2010 meeting was on spatial/temporal definitions of fisheries for length-based modelling (i.e., ensuring constant length selectivity) and assessing abundance indices and size composition data for these fisheries, developing indices of SSB abundance to monitor stock status between full assessments, and work planning and assignments for the next stock assessment. The WG was also tasked by the ISC Chairman with developing and providing information on potential biological reference points for North Pacific ALB in response to a request from NC5. The Working Group completed most of these tasks at this meeting, with some carry-over of the fishery definitions to the next meeting. The meeting held in conjunction with ISC10 focused on updating fishery statistics, completing the fishery definition work, providing a qualitative update on stock status using the SSB index, and planning for the next stock assessment.

Accomplishments of the ALBWG over the past year include:

1. Holding two workshops at which 18 working papers were presented;
2. Updating national fishery statistics through 2009, including an update of North Pacific ALB catch data from south Pacific countries reported to the SPC (see Table 1 in *Annex 9*);
3. Completion of new spatial/temporal fishery definitions, resulting in the Working Group defining 12 fisheries (nation x gear combination) for the next stock assessment. Some decisions on some size composition data and CPUE indices remain for the data preparation meeting in Oct 2010;
4. Providing information on a suite of potential biological reference points for north Pacific albacore,
5. Forwarding a framework for decision-making on reference points to solicit input from managers and move the reference point process for the stock forward;
6. Development of a SSB index to monitor trends in abundance for stock status updates between stock assessments;

7. A qualitative update on stock status since the last (2006) assessment; and
8. Finalization of work plans for the next stock assessment.

Based on discussions at the ALBWG meetings in April and July 2010, the ALBWG remains on track to conduct the next stock assessment at a workshop scheduled for 22-29 March 2011 in Shimizu, Japan. The transition from an age-structured VPA to length-based SS model for the next stock assessment is nearly completed. However, the ALBWG brings forward the following issues to the ISC Plenary:

- Completion of the fishery definition work (including choosing size compositions & CPUE indices) at the April and July workshops was affected by the need to devote time and resources to the biological reference point assignment and the staffing and resource challenges occurring at many government agencies at this time;
- The ALBWG requested clarification at ISC9 from NC concerning it's interpretation of $F_{SSB\text{-}ATHL}$: limit or target reference point; and
- The Working Group requests clarification of the policy on posting working papers on ISC website: once an author gives permission does the paper go up immediately or is Plenary clearance needed?

Discussion

On the ALBWG request for clarification from NC regarding whether its interim management objective is a target or limit reference point, there was no response from NC. ISC's view is that it should not wait as a response will not affect how ISC does its job.

The ALBWG requested clarification on posting working papers on the ISC website. The ISC Chairman indicated that this can be addressed under the agenda item Website (see section **11.5**).

It was noted that the ALBWG had further discussions on the IUU issue at the April 2010 Workshop *(Annex 6: page 15)*. The WG members did not have any new data on the matter. The Plenary is concerned about the lack of IUU data and the impact this may have on stock assessments. The Plenary concluded that organizations should make efforts in securing IUU information and make it publicly available.

It was noted that completing a full albacore assessment as planned is important and whether the ALBWG is on track to complete this assignment by March 2011 was asked. Holmes confirmed that the work is progressing well to reach that goal.

6.2 Pacific bluefin tuna

Y. Takeuchi, Chairman of the PBFWG, presented the summary of the activities of the group since ISC9 (*Annex 7*). The PBFWG met on 6-9 July 2010 in Nanaimo, Canada. At this workshop, 11 working papers and two oral presentations were presented with participation of 21 scientists from Chinese Taipei, Japan, Korea, Mexico, USA and the IATTC. At this meeting, the PBFWG completed the assignment on Biological Reference Points, conducted updates of 2009 analysis (2010 update) and conducted a complete set of sensitivity analyses of 2010 update. Takeuchi also introduced on-going and planned Biological Research for Pacific Bluefin tuna.

Takeuchi reviewed the PBFWG work plan for 2011 and 2012 including the schedule of the next full stock assessment. The WG plans to hold one workshop in January 2011 in Shimizu, Japan. The objective of this workshop is to improve stock assessment model and assessment data to resolve underlying problems identified in the current stock assessment (e.g., very high sensitivity of stock assessment results to M). The WG also plans to meet in July 2011 in conjunction with ISC11 Plenary. As for the schedule of the next full stock assessment, the WG is on track for completing an assessment in 2012. A two intercessional meeting process is planned with a data preparatory meeting to be held in November 2011 followed by the stock assessment meeting to be held May-June 2012. Takeuchi raised the issue of increasing workloads on WG members conducting the stock assessments in recent years.

Discussion

General concern was raised about the large number of WG workshops being proposed by the ISC WGs. The expected workload may be excessive particularly because many of the scientists are involved in two or more WGs and Members face difficulty in securing or allocating additional staff. Also, there may be conflict with the proposed meeting dates. The ISC Chairman noted that these issues are addressed under Review of Meeting Schedule (see section **10**).

6.3 Billfish

G. DiNardo, Chairman of the BILLWG, summarized the working group's efforts since the last Plenary, including a synopsis of the three BILLWG workshops held during this period (*Annexes 4, 5 and 8*). Workshop goals and accomplishments included the review and update of fishery statistics, completing an updated North Pacific SWO stock assessment, delineation of North Pacific MLS stock structure for the scheduled 2011 stock assessment, identification of potential biological reference points for billfish, and a plan to assess Pacific blue marlin. While significant progress was made to facilitate the goals, including the updating of Category I, II, and III data and standardization of CPUE time series, as well as completion of an updated North Pacific SWO stock assessment, further improvements are still needed.

Administrative matters were presented including increasing work for DiNardo (contacting sources outside of the ISC membership), the increasing workload for the BILLWG members, and the lack of WG commitment by some ISC Members. A proposed schedule for stock assessments was presented which included the completion of a MLS stock assessment in July 2011 and a Pacific-wide blue marlin stock assessment in July 2012. It was pointed out that a collaborative approach will be required to complete the blue marlin assessment and efforts are currently underway to establish the necessary collaborations. Proposed dates and venues for upcoming intercessional workshops were presented and they include 19-27 January 2010, in Hawaii, USA and 19-27 May 2010 at a location yet to be determined.

Problems impinging on the ability of the WG to complete its goals were presented, including the lack of (1) sufficient data in the ISC database and (2) continued participation at WG workshops by some Member.. In addition, the lack of understanding on the part of RFMOs and RFOs regarding the role of ISC also hampered progress. The WG also considered that convening the

proposed World Blue Marlin Symposium would detract from the adopted schedule for completing the Pacific-wide blue marlin assessment and recommended that the symposium be postponed. Possible solutions to the problems were presented and guidance from the Plenary sought. Finally, it was pointed out that many of the WG's goals were achieved and that their successful completion is linked directly to the commitment and dedication of scientists from the member countries and organizations.

Discussion

The ISC Chairman noted key items resulting from the BILLWG report: 1) change in stock structure of MLS from 1 to 2 stocks (EPO and WPO); 2) the previously planned World Blue Marlin Symposium for 2011 will not be organised and held by ISC; and 3) a proposed international tagging program.

It was suggested that because there is an urgent need for a current blue marlin stock assessment that the ISC Chairman, with the assistance of the BILLWG Chairman, contact other RFMOs that might be interested in such a project and determine if there is interest in a collaborative effort.

The need for a large-scale, international billfish tagging program was discussed. The ISC Chairman noted that if such a program is to be considered by the ISC Plenary for execution, scoping of the program and a program plan are needed. The Plenary assigned the BILLWG the task of scoping out the program and to bring forth a plan if it believes that a program will be feasible and likely to contribute significant information for advancing billfish information for stock assessment.

6.4 Bycatch

S. Shoffler reported the results of the ISC Bycatch Working Group (BCWG) workshop *(Annex 10)*. At ISC9, the ISC Chairman was tasked with convening the BCWG in order for the group to elect a chairperson and address other matters. The group met in July 2010. Its three objectives were to: (1) Review the bycatch working group terms of reference (TOR); (2) Review the bycatch table developed by STATWG in 2009; and (3) Elect a chairperson. The group reviewed the current TOR and discussed which of the tasks the BCWG was able to address and determined that the BCWG either did not possess the expertise to fulfil its tasks, as in the case of conducting stock assessments, or that other RFMOs were conducting the work already, as in the case of assessing mitigation measures, or that the workload was too diverse for the group, as in the case of assessing species interactions with HMS fisheries. The BCWG developed and discussed four options for Plenary to consider for the future of the BCWG. Among those four, it preferred the following two:

> *3. Dissolve the BCWG and create a new working group for sharks with TOR to conduct shark stock assessments and monitor stock condition in order to best leverage limited ISC resources and address emerging concerns.*
> *4. Revise the BCWG TOR to (1) assess the condition of shark stocks and (2) review mitigation measures for all bycatch species on the fisheries. The group determined that if Plenary determined that the BCWG should persist, the group*

should meet as soon as possible after that to elect a chairperson and establish a workplan.

Because the group discussed dissolving the BCWG, it tabled the other two objectives (reviewing the bycatch table and electing a chairperson) until the fate of the working group was determined. The group determined that if Plenary decided to keep the BCWG, the group should meet as soon as possible after that in order to elect a chairperson and establish a work plan.

Discussion

All four options outlined by the BCWG were discussed, but the Members focused on the two preferred options of the BCWG. Arguments were put forth for both options and after carefully reviewing the pros and cons, the Plenary decided to implement option 3, i.e., dissolve the BCWG and create a new working group for sharks. The rationale for this action is largely the need for ISC to focus its limited resources on work that it does best, i.e., stock assessments, and not repeat work that is being carried out by others, e.g., IATTC and WCPFC.

6.5 Shark Task Force

K. Yokawa presented the Shark Task Force report *(Annex 11)*. The goal of the ISC Shark Task Force Group (STFG) held on 15 July 2010 was to provide information to the ISC Plenary regarding the ISC's role in shark assessments. The STFG discussed all the data available for U.S., Japan, Korea and IATTC fisheries and noted that ISC member countries seem to have enough information for the stock assessments of key shark species in the North Pacific Ocean, especially blue and shortfin mako sharks. The STFG also noted that there was sufficient interest and expertise to conduct these assessments. Finally, STFG prepared a list of key shark species captured in the North Pacific Ocean fisheries to be assigned into four categories. In categorizing species for shark assessments, the STFG considered the WCPFC and IATTC lists of key species, the NC request to focus on blue shark and shortfin mako shark in the North Pacific Ocean, as well as other shark species that are caught in north Pacific fisheries for tuna and tuna-like species in relatively high numbers.

Discussion

M. Dreyfus indicated that shark fisheries are very important in Mexico. He iterated that they would support a shark working group and provide mako and other species data. U. Varanasi indicated that the STFG produced a very detailed and informative report.

K. Yokawa indicated that the STFG had communicated with SPC and that the SC has taken on shark assessments. The ISC Chairman asked the WCPFC Observers if the SC had been tasked with prioritizing shark assessments. S.-K. Soh indicated that WCPFC is prioritizing shark assessments and SPC may provide preliminary advice on the stock status of key shark species for the WCPFC meeting in December 2010. For SC6, SPC will provide a three-year research plan, but may not provide any preliminary advice on shark stock status. The ISC Chairman pointed out that WCPFC is required to collaborate with IATTC on shark assessments. The Yokawa indicated that the STFG shared its draft report with IATTC and WCPFC colleagues for comment who confirmed that collaboration between IATTC and WCPFC is on track.

Based on Plenary's discussion and the previous decision to establish a shark working group, the ISC Chairman reiterated that a new Shark Working Group will be established by the ISC. This new WG will be responsible for conducting stock assessment and other scientific studies as required, similar to the responsibilities of existing species WGs of the ISC. Taking into account the findings of the STFG, the new working group is to focus on monitoring shark fisheries particularly blue, shortfin mako, bigeye thresher, pelagic thresher, silky, oceanic whitetip, hammerhead, and any other shark species for which stock assessments may be needed. The working group should collaborate with other RFMOs of the Pacific and initially focus on stock assessments of blue and shortfin mako shark. Members wishing to participate in the shark working group were requested to nominate up to two scientists to work with the ISC Chairman in organizing the first meeting of the working group to be held before ISC11. The agenda for the first meeting will include election of a working group chairperson and development of a work plan for blue and shortfin mako shark assessments.

6.6 Seminar on Oceanography

On behalf of Z. Zhang, J. Holmes presented a summary of the seminar, "Oceanographic and low trophic-level habitat in the North Pacific Ocean," convened just prior to Plenary. Information on this seminar can be found in *Annex 13*.

Discussion

The ISC Chairman expressed appreciation to Z. Zhang for organizing the seminar. He also thanked the presenters on behalf of ISC and indicated that he will send a letter of appreciation to Z. Zhang and the presenters.

7 STOCK STATUS AND CONSERVATION ADVICE

The ISC Chairman referred to two special working group assignments for the past year: identifying potential biological reference points (BRPs) and reviewing the conservation advice from ISC9 for clarity.

7.1 Albacore

J. Holmes, Chairman of the ALBWG, summarized the recent work of the ALBWG (*Annexes 6, 9*). The last albacore stock assessment was completed in December 2006 using fishery data through 2005. Stock status and conservation advice were provided to the ISC7 Plenary (July 2007) and to NC3 (September 2007). No formal update of stock status has been conducted since the 2006 assessment. However, at its 12-13 July 2010 meeting, the ALBWG undertook a qualitative update using available fisheries data from 2006 to 2009 and an index of spawning stock biomass (Japanese longline CPUE age 6-9+). This qualitative update found that:

- total catch in 2009 (77,939 t) was about 9,000 t higher than 2008 and near the long-term mean catch (74,900 t) for the 1952-2008 period;

- catches in most fleets (country x gear combination) have declined or been stable since the last stock assessment;
- nominal effort as measured by the number of vessels has also declined or been stable in most fleets since the last stock assessment; and
- the North Pacific Japan longline age 6-9+ SSB index has declined from previous high levels and appears to be relatively stable since the last stock assessment.

Based on these findings, the ALBWG concluded that:

1. A new stock assessment will be necessary to fully understand the implications of the new data available since the last stock assessment;

2. The 2006 stock assessment estimated that albacore spawning biomass reached an historical high in 2005 and then projected a decline thereafter. The age 6-9+ index shows that SSB has declined from previous high levels and appears to be relatively stable since the last stock assessment;

3. The WG did not focus on recruitment in its latest qualitative review and is unable to provide insight into recruitment in recent years beyond observations in previous Plenary reports; and

4. Nominal effort in most fisheries (as measured by the number of vessels) appears to have declined slightly or been stable since 2005. Although catches exhibit more interannual variability than effort, with the largest variation occurring in the Japan pole-and-line fisheries, most fisheries catches have declined or remained relatively stable over the same period. This could mean that F_{2009} is less than the $F_{2002\text{-}2004}$ (0.75 yr^{-1}) used in the 2006 stock assessment projections. Alternatively, F_{2009} may be as high as the value used in the stock assessment projections since the level of recruitment after 2005 is not known.

Discussion

In discussion, clarification was sought regarding the reference years for "F_{cur}" in the ISC9 conservation advice for albacore tuna. Holmes confirmed that F_{cur} refers to the geometric mean of F for 2002-2004 and Plenary revised its advice, accordingly.

Conservation Advice

After discussion of the ALBWG conclusions (*Annex 9*) and consideration of comments raised by Members, the Plenary offers no new conservation advice for North Pacific albacore above and beyond that which was provided at ISC9 in July 2009 (based on the advice of ISC7), pending the results of a new stock assessment, which is scheduled for 2011. That advice is:

> ***"Previous scientific advice, based on the 2004 stock assessment, recommended that current fishing mortality rate (F) should not be increased. It was noted that management objectives for the IATTC and WCPFC are based on maintaining***

population levels which produce maximum sustainable yield. Due to updating, and improvements and refinements in data and models used in the 2006 stock assessment, it is now recognized that F2002-2004 (0.75) is high relative to most of the F reference points [commonly used in fisheries management] (see Table 5a in Annex 5) [of the ISC7 Plenary Report].

On the other hand, the same analysis indicates that the current [2005] estimate of the SSB is the second highest in history but that keeping the current F would gradually reduce the SSB to the long-term average by the mid 2010s. Therefore, the recommendation of not increasing F from current level ($F_{2002-2004}$=0.75) is still valid. However, with the projection based on the continued current high F, the fishing mortality rate will have to be reduced."

Based on analyses conducted by the ALBWG since ISC9, the following points are highlighted:

1. **Both the ISC9 and ISC10 Plenaries note that there is increasing uncertainty concerning the status of North Pacific albacore in the absence of a new stock assessment.**
2. **The ISC10 Plenary notes that there is no strong positive or negative signals in the age 6-9+ SSB index since the last stock assessment.**
3. **The next stock assessment is expected to be completed in early 2011 and the results will be presented at ISC11.**
4. **The ISC9 Plenary reported that the estimated value of $F_{SSB-ATHL}$ is 0.75yr^{-1} for a 25-year projection period using fishery data through 2008. This value is similar to $F_{2002-2004}$ = 0.75 yr^{-1}, estimated in the last stock assessment.**

7.2 Pacific Bluefin Tuna

Y. Takeuchi, Chairman of the PBFWG, summarized the recent stock assessment work of the PBFWG on PBF stock status (*Annex 7*).

In 2008, the WG conducted a stock assessment of PBF using Stock Synthesis II with fishery data through 2005. Results of that stock assessment were accepted by the ISC8 Plenary; however, ISC8 requested that the WG investigate the causes of some of the implausible model results (e.g. large B0, low SPR and depletion level. See ISC8 Plenary report).

In 2009, a different natural mortality schedule and Stock Synthesis III were used to reanalyze stock status using data through 2005 (the same as that used in the 2008 assessment). The WG concluded that the results of the 2009 reanalysis were more plausible and those results were presented to ISC9. In both the 2008 and 2009 analyses, the "current" fishing mortality rate was characterized by a three-year average (2002-2004) with the terminal year of the model results (2005) excluded due to unreliable estimates.

In 2010, the WG conducted an update of the 2009 analysis along with a complete set of sensitivity analyses and stock projections using data through 2007. Data used in the 2010 update were analyzed using the same methods and parameters in the stock assessment model as in 2009.

The updated "current" fishing mortality rate was calculated as a three-year average (2004-2006) with the terminal year of the model results (2007) excluded due to unreliable estimates. The WG reviewed the results of the update with the objectives of characterizing the recent relative change in fishing mortality rate and spawning biomass. It should be noted that even the most recent estimates of fishing mortality would not yet reflect any actions with regard to the fishery management decision for PBF by the 6th Regular Session of the Western and Central Pacific Fisheries Commission (CMM 2009-07, Dec. 2009).

A summary of the 2010 update is as follows:

1. A number of sensitivity runs were conducted in 2010 to investigate uncertainties in biological assumptions and fishery data. Results indicate that the assumption of adult M is particularly influential to the estimate of absolute spawning biomass and fishing mortality. Although absolute estimates from the stock assessment model were sensitive to different assumptions of M, relative measures were less sensitive.
2. The estimate of spawning biomass in 2008 (at the end of the 2007 fishing year) declined from 2006 and is estimated to be in the range of the 40-60 percentile of the historically observed spawning biomasses (Fig. 1).
3. Average Fishing Mortality 2004-2006 ($F_{2004\text{-}2006}$) had increased from $F_{2002\text{-}2004}$ by 6% for age-0, approximately 30% for ages 1-4, and 6% for ages 5+.
4. 30-year projections predict that at $F_{2004\text{-}2006}$ median spawning biomass is likely to decline to levels around the 25^{th} percentile of historical spawning biomass with approximately 5% of the projections declining to or below the lowest previously observed spawning biomass. At $F_{2002\text{-}2004}$ median spawning biomass is likely to decline in subsequent years but recover to levels near the median of the historically observed levels. In contrast to $F_{2004\text{-}2006}$, $F_{2002\text{-}2004}$ had no projections (0%) declining to the lowest observed spawning biomass. In both projections long-term average yield is expected to be lower than recent levels.

Discussion

The Plenary reviewed in detail the four summary points (above) of the PBF stock assessment update.

In discussion on item 3, Y. Takeuchi was asked to clarify the maturity schedule of PBF. Takeuchi indicated that the following maturity schedule was used: age 3 (20%); age 4 (50%); and age 5+ (100%). He also indicated that the maximum age of reproductive activity of PBF is not known. However, he suggested that given the currently estimated total mortality (F+M), there would be very few survivors over age 20. Under item 4 questions regarding the 30-year projection period were asked. A comment was made that the 30-year period of the future projection may be too long given uncertainty. It was requested that recruitment assumptions used in the projections be clarified. In response, it was explained that the estimates of recruitment were randomly sampled (with replacement) and this is the identical methodology used in 2008 and 2009. It was suggested that this might be an optimistic assumption at low stock size.

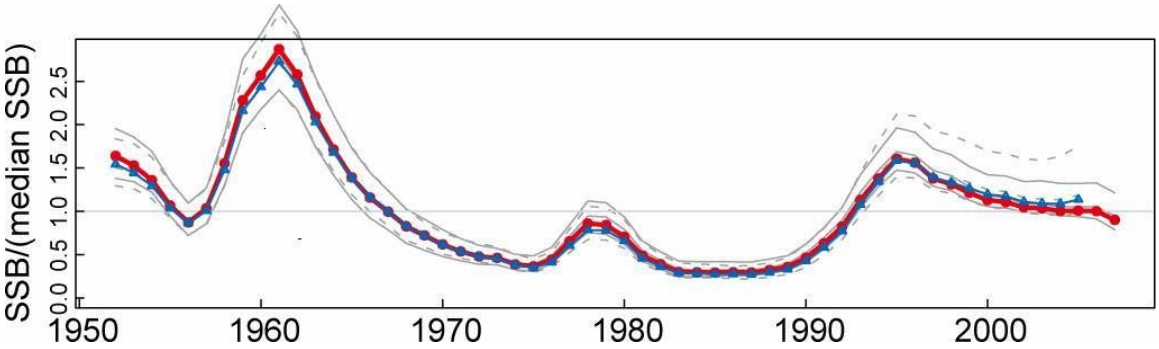


Figure 1. Relative SSB trend of Pacific bluefin tuna (*Thunnus orientalis*) scaled by the median of historical observed biomass (1952-2007). Lines with circles and triangles are point estimates from the 2010 update and the 2009 update respectively. Solid lines and dashed lines associated with point estimates are the 90% confidence interval. A value of 1.0 on the vertical axis is the median of historical SSB (1952-2007).

Conservation Advice

Given the conclusions of the July 2010 PBFWG workshop (*Annex 7*), the current (2004 - 2006) level of F relative to potential biological reference points, and the increasing trend of F, it is important that the level of F is decreased below the 2002-2004 levels, particularly on juvenile age classes.

7.3 Striped Marlin

G. DiNardo, Chairman of the BILLWG, presented an update on the stock status of MLS. He noted that no new assessment has been conducted. The last assessment was conducted in 2007 and presented at ISC7. A new assessment is scheduled to be completed before ISC11. The new assessment will assume a two-stock scenario, a western central Pacific Ocean stock and an eastern Pacific Ocean stock. A qualitative review of stock status was not conducted; therefore the BILLWG proposes that the ISC Plenary maintain the existing conservation advice for this species.

Discussion

Plenary discussed the previous (ISC9) conservation advice and revised the advice to clarify the term "current level (2003 or before)."

Conservation Advice

While further guidance from the management authority is necessary, including guidance on reference points and the desirable degree of reduction, the fishing mortality rate of striped marlin (which can be converted into effort or catch in management) should be reduced from the current level (2001-2003), taking into consideration various factors associated with this species and its fishery. Until appropriate measures in this regard are taken, the fishing mortality rate should not be increased.

7.4 Swordfish

G. DiNardo, Chairman of the BILLWG, presented background information on the SWO stock assessment process and asked J. Brodziak to present the results of the updated EPO SWO stock assessment conducted in 2010.

The North Pacific WCPO and EPO SWO stocks were assessed by the ISC Billfish Working Group in 2009 (Figure 2).

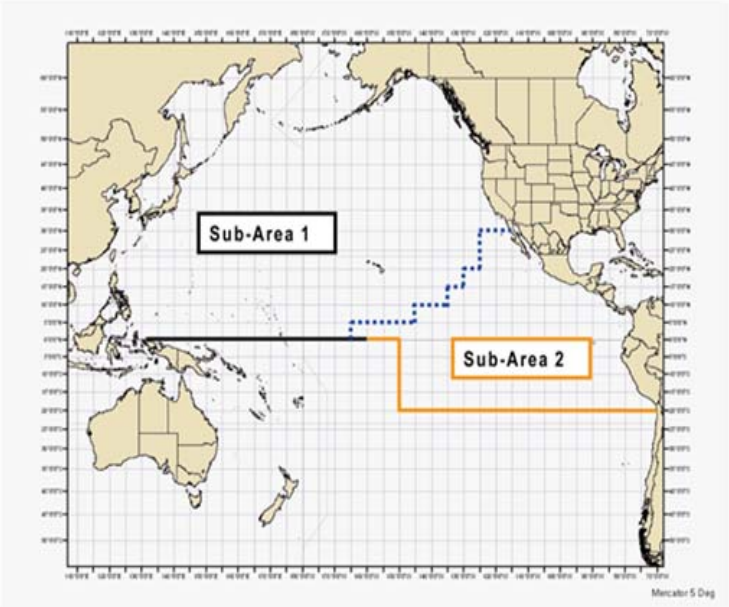


Figure 2. Geographic areas used for the ISC Billfish stock assessment of North Pacific swordfish stocks. Sub-Area 1 corresponds to the Western and Central North Pacific (WCPO) swordfish stock which was assessed in 2009. Sub-Area 2 corresponds to the Eastern North Pacific (EPO) swordfish stock which had a stock assessment update conducted for ISC 10 in 2010.

In 2010, the EPO stock assessment was updated to include missing SWO catch from the IATTC area (Figure 3). Results of the updated EPO stock assessment were consistent with the previous 2009 assessment of the EPO stock.

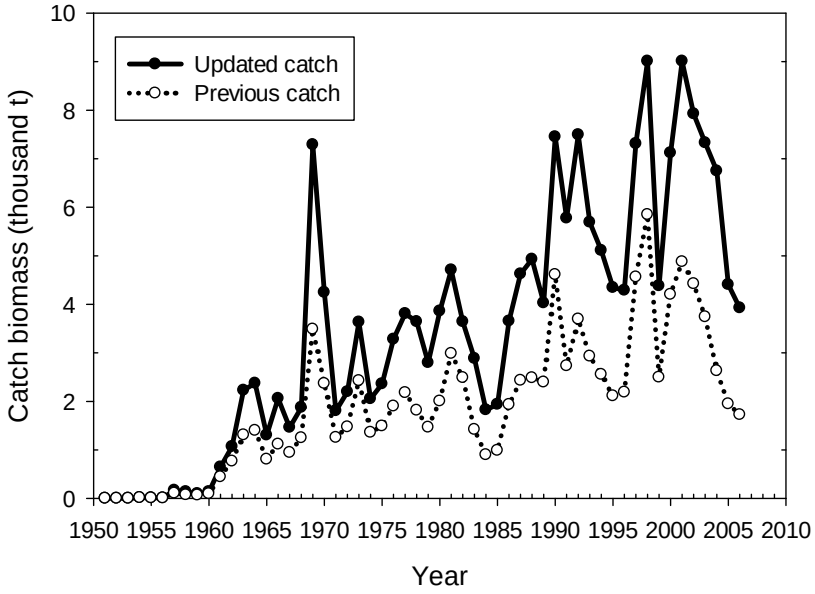


Figure 3. Total catch biomass estimates for the Eastern North Pacific (EPO) swordfish stock from 1952-2006. The updated catch biomass (solid line, filled circle) shows the catch used in the 2010 update of the EPO stock assessment reported at ISC 10. The previous catch biomass (dotted line, open circle) shows the catch used in the previous EPO stock assessment reported at ISC 9 in 2009.

Based on the 2009 stock assessment results, the exploitable biomass of the WCPO SWO stock was estimated to be about 75,000 t in 2006 (B_{2006}), roughly 30% above B_{MSY}. The exploitation rate on the WCPO stock in 2006 was estimated to be 14% with a total catch of roughly 9,900 t or roughly 69% of MSY (MSY=14,400 t). There was very high probability that B_{2006} was above B_{MSY}, a 93 out of 100 chance, and there was a 0 out of 100 chance that the exploitation rate in 2006 exceeded the rate to produce MSY.

Based on the 2010 stock assessment update results for the EPO stock only, the exploitable biomass of the EPO SWO stock was estimated to be about 69,000 t in 2006, over 200% above B_{MSY} (Figure 4).

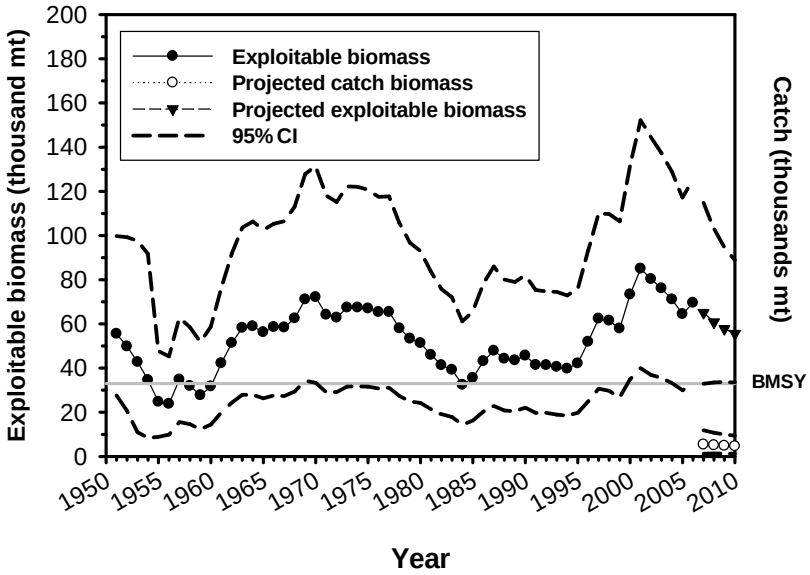


Figure 4. Time series of estimates of exploitable biomass (solid line, filled circle) of eastern North Pacific swordfish during 1952-2006, with 95% credibility intervals (dashed lines), projections of exploitable biomass (solid line, filled triangle), and 95% credibility intervals (dashed lines). Stochastic projections of exploitable biomass and catch biomass during 2007-2010 are based on production model dynamics assuming that the projected exploitation rate is normally distributed with a mean equal to the average exploitation rate during 2004-2006 and an associated standard deviation.

Exploitation rate on the EPO stock in 2006 was estimated to be 6% with a total catch of roughly 3,900 t or roughly 78% of MSY (MSY=5,000t). There was very high probability that B_{2006} was above B_{MSY}, a 99 out of 100 chance, and there was a two out of 100 chance that the exploitation rate in 2006 exceeded the rate to produce MSY.

The exploitable biomass of the WCPO SWO stock was 31% above B_{MSY} and the exploitation rate was 46% below F_{MSY} in 2006. Similarly, exploitable biomass of the EPO SWO stock was over two-fold greater than B_{MSY} and the exploitation rate was 62% below F_{MSY} in 2006. Based on results of the updated North Pacific EPO stock assessment and the 2009 North Pacific WCPO stock assessment, the BILLWG proposed that the ISC Plenary maintain the existing conservation advice for this species.

Discussion

Plenary discussed the previous (ISC9) conservation advice and considered the term “well above” to be ambiguous and the advice was revised. The Plenary also discussed what some Members considered to be a bigger concern, that the ISC9 conservation advice reflected results instead of advice.

Conservation Advice

The WCPO and EPO stocks of swordfish are healthy and above the level required to sustain recent catches.

8 REVIEW OF STOCK STATUS OF SECONDARY STOCKS

The ISC has an interest in yellowfin, bigeye and skipjack tunas in the North Pacific Ocean. This interest is shared with other RFMOs that have a larger interest and conduce stock assessments on these stocks. Because IATTC and SPC actively research these stocks, they have been annually invited by Plenary to provide briefings on their research findings on stock condition and fishery impacts on these stocks.

8.1 Eastern Pacific – Yellowfin, Bigeye and Skipjack Tunas (*ISC/10/PLENARY/info/04, 05, 06*)

M. Dreyfus discussed the stock assessment and status of yellowfin, bigeye and skipjack tunas in the eastern Pacific Ocean drawing on material received from the IATTC. IATTC assessments updated since 2009 have not yet been released and the information presented by Dreyfus was for the 2009 assessment and not new. This information was also presented at ISC9 Plenary in 2009. IATTC will present new assessments in late August 2010. Dreyfus mentioned that IATTC has changed the timing of its scientific meeting to comply with the rules of the new IATTC convention (Antigua Convention) that comes into force in August 2010.

Dreyfus reminded the group that the 2009 assessments for YFT and BET were conducted using Stock Synthesis III with the base case scenario of no adult-recruitment relationship. IATTC does not conduct a full assessment of SKJ because there are insufficient estimates of biological parameters for this species; instead, it uses relative indicators that are estimated to check for significant trends. At this time, there are no conservation concerns for SKJ.

Discussion

The ISC Chairman expressed his appreciation for the presentation and asked to be kept informed of future updates on stock status.

8.2 Western Pacific Ocean – Yellowfin, Bigeye, Skipjack, and Southern Albacore (*ISC/10/PLENARY/info/02 and 03*)

N. Miyabe, Chairman of the WCPFC-SC, presented summaries of tuna stock status in the WCPO based on the 2009 tuna stock assessments for BET, YFT and SKJ tunas in the WCPO, and ALB in the South Pacific Ocean, including management implications. The WCPFC-SC relies on the SPC for conducting the stock assessments for these stocks.

The 2009 BET assessment presented at SC5 was updated from the 2008 assessment. The BET stock status estimates for the base case model concluded that overfishing is occurring (with 100% probability), that the stock is not in an overfished state, and that fishing mortality has increased substantially since 2001-04. Given the revised estimates of F/Fmsy, reductions in

fishing mortality of 34-50% are needed. SPC was asked to evaluate the effectiveness of the CMM for a range of alternative scenarios.

The assessment for YFT was updated in 2009 from the previous update in 2007. Although the overall YFT status was that is it not overfished, the condition in Region 3 (western equatorial) was estimated to be fully exploited – spawning biomass is now 30% of the unfished level and this region accounts for 95% of the total catch. Due to these conditions, SC5 recommended not allowing F to increase in the western equatorial region.

For SKJ the most recent assessment was done in 2008. Two spatial model scenarios were used in the assessment: (1) the entire WCPO (stratified into 6 regions, as done for the other tuna assessments), and (2) the equatorial regions only (comprising just the two regions that make up most of the fishery). The equatorial model was adopted to assess SKJ. Biomass estimates are largely driven by trends in recruitments that are more variable in the eastern equatorial region, with peaks in recruitment, and consequently biomass, following El Niño events. In recent years SKJ biomass has been 40% above average. The assessment indicates that SKJ is moderately exploited, that the stock is not in an overfished state with B/B_{msy} greater than 1, and that overfishing is not occurring with $F/F_{msy} = 0.26$, substantially below 1.

The South Pacific ALB stock assessment for 2009 determined that adult fishing mortality is much lower (by 50%) than the 2008 assessment estimates. Adult fishing mortality increased steeply in recent years – but is more realistic (F = ~0.3) than previous years' estimates for fully exploited fish). This stock is not in an overfished state and overfishing is not occurring.

Discussion

The ISC Chairman thanked N. Miyabe for the presentation and stated that ISC looks forward to receiving future updates on stock assessments of WCPO stocks.

9 REVIEW OF STATISTICS AND DATA BASE ISSUES

S.K. Chang, Chairman of the STATWG, reported on the STATWG meeting held 16-19 July 2010 in Victoria, Canada *(Annex 12)*. Three important tasks were addressed this year in addition to regular agenda items: (1) Convene a metadata workshop to collect metadata from each member and unify the extent and contents of database; (2) Begin development of complete ISC data inventory; (3) Review the data reporting protocol.

A metadata workshop was held in conjunction with the STATWG. The group recognized the need and importance of having complete ISC metadata and standardized names of fishing fleets and codes for the ISC and WG databases, and so the metadata workshop focused on and created a standardized fleet names and codes, a metadata summary table by each country and fleet, and a set of unified codes for the ISC database. All the tables and codes will be further reviewed by species working groups and then adopted in STATWG 2011. It was recommended that working groups use the codes and names, members update the metadata, and the ISC Data Administrator (DA) revise the data system accordingly after 2011.

Catalogues and inventories of Categories I-III data from the ISC database were created and reviewed in the STATWG. Several issues in the ISC database were noted in the meeting and solutions were provided which include requests for members to submit missing historical data and to address the inconsistencies in fishery terms noted in the metadata workshop. Discrepancies between the ISC and WG databases were discussed and the STATWG concluded that: these were two different databases. The ISC database includes only aggregated data submitted by Members according to the ISC Data Reporting Protocol and does not include all the data the WGs use for their stock assessments.

A table comparing ISC and WCPFC database holdings was reviewed and discussed. In general, for the large-scale fisheries, WCPFC has more data than ISC and, for the small-scale fisheries, ISC has more data than WCPFC. It was noted that the ISC data catalogue is not yet complete and will need to incorporate data submitted by Members to working groups (that had not been submitted to the ISC database) and recover missing historical data from some Members.

Revisions to the Data Reporting Protocol (see *ISC/10/PLENARY/09*) were proposed, mainly to clarify the data contents of the ISC database, to clarify what is public domain data, and to streamline the data submission procedure (all data are to be submitted to the DA, instead of to working groups). Members' performance regarding data submission was reviewed in a report card adopted by ISC9. Most Members submitted their data on time in 2010. The absence of data from China was noted.

All ISC species WG Chairpersons identified the need to have a complete catch inventory of the species of their interests and noted the usefulness of comparing the ISC and WCPFC catch databases. They also noted that the Biological Sampling Plan (BSP) presented to ISC9 was important to address critical needs for updated biological and life history data.

A permanent Data Administrator (DA) began working this year. The STATWG reviewed the responsibilities of the DA to be in accordance with the revised data reporting protocol, but decided not to suggest changes until the DA is fully functioning in the job. The STATWG also agreed there was a need to retain the STATWG to monitor the changes established during the meeting, including those to the data reporting protocol and to the database, and decided to revisit the need for and structure of the STATWG in 2011.

Discussion

The ISC Chairman thanked S.K. Chang and the members of the STATWG for the hard work and the considerable progress made since ISC9. U. Varanasi lauded the well organized STATWG report and thanked S.K. Chang for his excellent leadership. Z.G. Kim thanked the STATWG and indicated that Korea will continue to cooperate to provide the best data to the ISC database.

The Plenary reviewed the STATWG recommendations in order to provide guidance and/or make decisions. The Plenary's instructions for each are as follows:

1. Encourage working group data managers and member Data Correspondents to work with the DA.

2. Data Correspondents should continue updating metadata in collaboration with WGs and should provide metadata with all data submissions to the DA.
3. If Data Correspondents submit updated catch data to WGs during the year, the WG Data Managers should inform the ISC DA of the updates. Data Correspondents are responsible for providing all data updates by the July 1st due date to the DA (as specified in the data reporting protocol).
4. The metadata workshop recommendations (see *Annex 12, Attachment 5*) should be incorporated by Data Correspondents, the DA, and WG Data Managers, as appropriate, except for the recommendation for ISC to apply for membership to the Coordinated Working Party for Fisheries Statistics, which Plenary decided not to do.
5. Plenary agreed to continue seeking funding for the previously proposed Biological Sampling Program (see section on Status of NC research proposals **11.8**).
6. Regarding the recommendation by the STATWG to clarify the supervision of the DA, the Plenary discussed this under the topic Data Administrator and Performance (section **9.1**).

9.1 Data Administrator and Performance

H. Nakano introduced the new DA, Izumi Yamasaki, Associate Researcher at the National Research Institute of Far Seas Fisheries and noted that she is responsible for ISC database management.

Discussion

S.K. Chang indicated that the STATWG reviewed the Responsibilities of the Database Administrator (see *ISC/10/PLENARY/09*). The STATWG agreed that the responsibilities would not be revised while the DA came up to speed and a review is planned for next year. The STATWG noted some duplication of responsibilities between the STATWG and the DA and determined that the need for and function of the STATWG might change once the new ISC DA is up to speed. In the mean time, the STATWG also agreed that it should not be dissolved and continue to meet in order to monitor progress of the DA.

The ISC Chairman mentioned that when the ISC last discussed dissolving the STATWG, it was with the understanding that the DA would be fully addressing ISC's data administration needs. Given the overlapping roles among the Chairman of the STATWG, the DA, WG Data Managers, and Data Correspondents, determining the respective roles and responsibilities is critical and will involve establishing a work plan and tracking progress of the DA. In the meantime, dissolving the STATWG might complicate data management for ISC. The ISC Chairman indicated that the responsibility of getting all these parties together currently resides with H. Nakano (the DA's local supervisor) and suggested that he work with these parties and ISC leaders in order to delineate the respective roles in monitoring the DA's progress.

The ISC Chairman further clarified the existing process for tracking and monitoring progress of the ISC DA: ISC Members articulate their data management concerns in the STATWG and Plenary; H. Nakano is responsible for local tracking and monitoring progress of the DA and providing the results to the STATWG. The ISC Chairman referred the Plenary to the DA responsibilities detailed in the Operations Manual (*ISC/10/PLENARY/09)* and to his report in which he suggested a realignment of the administrative responsibilities under the ISC Chairman

(see Report of the Chairman, section 4.0). It was pointed out that the administrative functions of the ISC are classified under the Office of the Chair.

9.2 Data Submission Report Card

A format for the data submission report card was developed last year. S.K. Chang presented the ISC data report card for members dated 19 July 2010 *(Annex 12)*. There are three status categories in the report card for years 2008 and 2009. "Good" is assigned to countries if Category I-III data have been received before July 1. "Fair" is assigned if data have been received in July. "Poor" is assigned if data have been received after August. "NA" is assigned when data are not available.

Discussion

The group discussed the report card. It was pointed out that the current report card does not reflect the quality of data submitted. The STATWG Chairman indicated that the STATWG will review the report card next year and may revise how members are rated in the report card. He also indicated that data in delegation reports do not qualify as submitted to the ISC. The official submission of data is completed when data are submitted to the DA and to the ISC database. He noted that data in the delegation report differ from those submitted to the ISC DA for the ISC database. The ISC Chairman indicated that although China recently submitted 2009 Category II data, it has not submitted a delegation report. The ISC DA should ask China to submit the remainder of the data. After each Plenary, the DA should review the delegation reports to determine if they contain information that indicate gaps in the ISC database and communicate findings to STATWG Chairperson and appropriate Data Correspondent.

9.3 Total Catch

S.K. Chang presented the total catch of highly migratory species (HMS) in the ISC database and pointed out several issues with the ISC database and data management. He mentioned that the catches are for north of the equator in the North Pacific Ocean and are incomplete. He noted that the requirements for submission of catch data are for all HMS.

Discussion

Plenary noted the need to monitor the production of HMS fisheries in the North Pacific Ocean. The ISC Chairman reminded Members of the requirements for providing at least Category I data for the list of species in the ISC Operations Manual (see ISC/10/PLENARY/09). These should be available in the ISC database as well as reported in the delegation reports. Plenary also agreed that the data should appear in the Plenary reports and on the ISC website.

9.4 North Pacific-wide Catch and Bycatch

S.K. Chang indicated that ALB catch from non-Member countries was obtained from SPC and incorporated in the ALBWG database. No bycatch data has been submitted, and Chang asked whether a format for bycatch data should be developed.

Discussion

The ISC database does not contain bycatch data. The Plenary encouraged Members to submit full data on bycatch by their respective HMS fleets, and submit data as accurate as possible for the key ISC species in delegation reports.

9.5 Rescue of Historical Data

S.K. Chang reported that ISC has made some progress in rescuing historical data. PBF data has been collected back to World War II. ALB (catch metadata) has been collected for U.S. and Canadian troll fisheries. The BILLWG has obtained some data for SWO catches by Spain.

10 REVIEW OF MEETING SCHEDULE

10.1 Time and Place of ISC11

Provisional dates for the 11th meeting of the ISC are 20-25 July 2011. The meeting place is not yet determined. The U.S. offered to host the next meeting and will provide further details as they become available.

10.2 Working Group Intercessional Meetings

The Plenary discussed schedules for WG intercessional meetings and agreed on the tentative schedule presented in Table 5.

11 ADMINISTRATIVE MATTERS

11.1 Biological Reference Point Assignment

At the 5th session of the Northern Committee (NC) in Nagasaki, Japan in 2009, the NC requested assistance from the ISC in identifying potential biological reference points (BRP) for the northern stocks, ALB, PBF and SWO, of the North Pacific Ocean. The ISC worked on this request during scheduled intercessional meetings in 2009 and 2010. The work plan for each of the species working groups was to compile in table form the pros and cons and any appropriate comments on the potential BRPs used in stock status evaluations of their species. Furthermore, the values of the BRPs, where available, from the most recent stock assessments should be included. The results of this assignment for the Working Groups were compiled in *ISC/10/PLENARY/04*.

11.2 Peer Review of Function Process

S. Shoffler reported that the rules and procedures for conduct of the ISC and subsidiary bodies call for a review of function every five years or more frequently *(ISC/10/PLENARY/05)*. ISC has not yet had a review of its function since its inception. A review of function should be conducted to promote transparency and scientific effectiveness. ISC10 is tasked with determining how to

accomplish this requirement. Shoffler suggested two options for Plenary to consider: contract out the review or organize the review itself.

Discussion

Plenary discussed the pros and cons of the two options including the high cost of either option ($50-90K USD). Plenary decided to organize a review of the ISC function itself. The first step would be to create an ISC Review Task Force (RTF) from the membership to draft terms of reference and determine timelines and costs. This option also will require ISC to solicit funding for the review from the Member countries.

It was agreed that the RTF would be organized by the ISC Chairman who indicated that each Member country should identify a Review Task Force Member by the end of the Plenary.

11.3 Election of Chairperson for 2011-2013

G. Sakagawa indicated that he was stepping down as ISC Chairman after serving five years. An election was held according to ISC rules and procedures (Operations manual pages 12 and 13) and Gerard DiNardo was elected for a three-year term, 2011-2013.

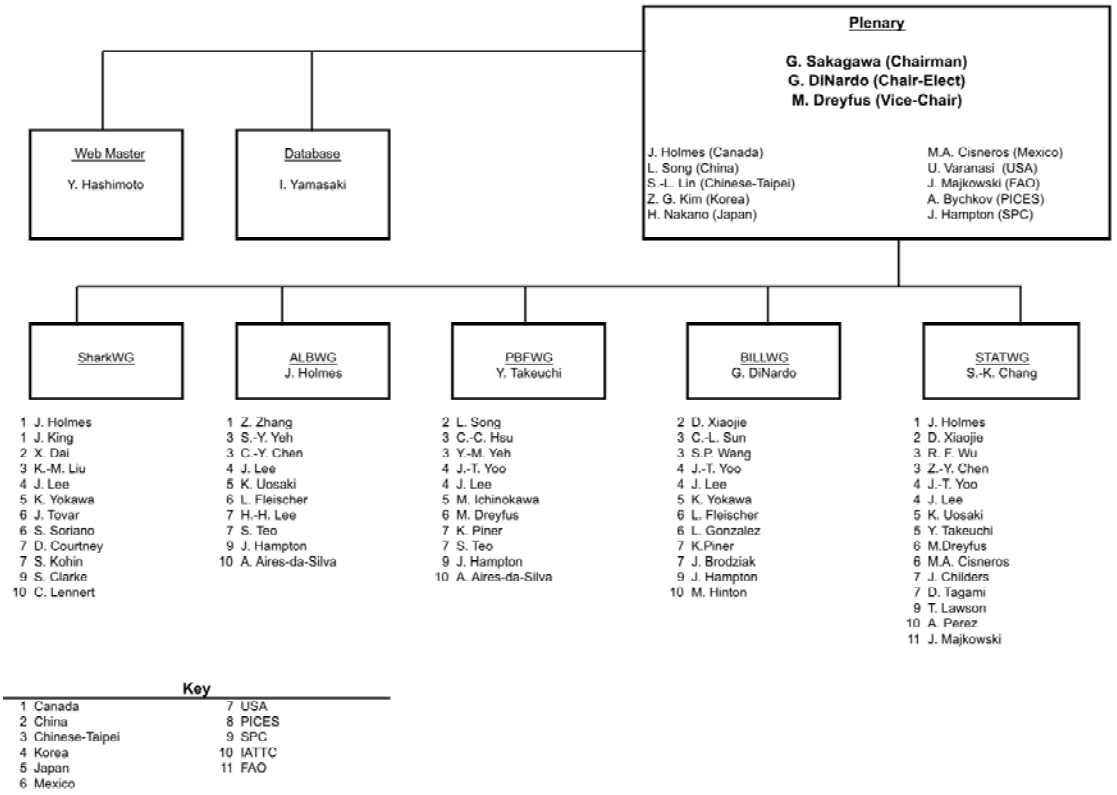
DiNardo will assume the role of ISC Chairman after this ISC10 session. DiNardo thanked the Members for the confidence they have put in him and indicated that he is looking forward to serving ISC. He also thanked G. Sakagawa for his good leadership and for successfully moving ISC forward during his time as Chairman. U. Varanasi also expressed her appreciation for Sakagawa's contribution in advancing ISC, especially considering the limited available resources.

11.4 Organization Chart and Contact Persons

The ISC Organization Chart was reviewed and updated through discussion with members (**Figure 5**). The ISC Chairman noted that the participants listed on the Organization Chart serve as the points of contact for the respective WGs. They also serve as points of contact for respective Delegation Leaders in keeping abreast of WG activities and workshop results and for serving as team leaders of national scientists to intercessional WG

meetings.

Figure 5. ISC Organizational Chart (July 2010)



11.5 Website

H. Nakano reported recent progress made on the ISC website, and introduced the new ISC Webmaster, Y. Hashimoto. The Webmaster is a recent hire and is locally supervised by H. Nakano, National Research Institute of Far Seas Fisheries. Hashimoto has been engaged in renewing and improving the ISC website in response to requirements set out by ISC9.

Hashimoto provided a brief report on recent improvements to the ISC website including an aesthetically pleasing appearance, the addition of user-friendly functions, and improvements to the structure. Future work to fill contents of the “working group”, “recommendations”, and “statistics” pages, which will be done with the cooperation of the WG chairs, the ISC Chairman and DA, respectively, were also reported. In addition, the urgent task of uploading working papers submitted to WGs since July 2009 was noted and should be completed as soon as possible after the ISC10 Plenary. The current process for providing these papers is as follows: After authors provide permission for release, WG Chairpersons provide papers to the ISC Chairman who then sends them to the Webmaster. Hashimoto also reviewed the data submission process using the researcher’s portal site, a protected part of the ISC website which can be accessed only by Data Correspondents.

Discussion

The ISC Chairman reminded Plenary that the website is the face of ISC and commented on the

outstanding results to date of the redesigned ISC website.

S. Shoffler introduced the draft ISC Webmaster responsibilities *(ISC/Plenary/08)*. The Chairman asked Plenary to review these responsibilities and provide comments to the ISC Chairman by 2 October 2010. The Chairman will follow up with H. Nakano on changes and once the responsibilities are accepted by Delegation Leaders they will be part of the ISC Operations Manual.

Plenary asked for clarification regarding the responsibility of the Webmaster to communicate with stakeholders. The ISC Chairman indicated that the stakeholders are the ISC leadership (Delegation Leaders, WG Chairs, ISC Chairman and Vice-Chairman). The details of communicating with the leadership need to be described in the Webmaster responsibilities and in the management manual that needs to be developed by the Webmaster. Plenary also noted that the website needs a point of contact to manage any original content.

The importance of uploading WG Working Papers was discussed. The ISC Chairman emphasised that working papers submitted to WGs and approved for release by authors must be uploaded on the ISC Website as soon as possible, e.g., after ISC10. Plenary also determined that authors can retract permission for making papers publicly available up to the time they are sent by the WG Chairs to the ISC Chairman.

11.6 Best Practices Meeting

H. Nakano presented a report on the Joint Tuna RFMO Meeting of Experts to Share Best Practices on the Provision of Scientific Advice held in Barcelona, Spain at May 31 to June 2, 2010. This meeting is one of four WSs following the "Kobe procedure" and was held because of the similar problems faced by tuna RFMOs. The workshop reviewed and made recommendations on future priorities for data and tuna research that would allow the RFMOs to provide more efficient and fully transparent scientific advice on their tuna stocks and pelagic ecosystems. In the meeting, five keynote speakers made presentations on the major fields of interest, i.e. 1) Routine data collected by year: catch, effort and size data, 2) Biological data, 3) Stock assessment, 4) Communication between RFMOs and the world, and 5) Enhanced cooperation among tuna RFMOs. The meeting report identifies 25 recommendations. (Tuna-org: http://www.tuna-org.org/)

J. Brodziak presented his observations of that meeting focusing on the recommendations regarding uncertainty in stock assessments and scientific advice. A key recommendation was the need to produce decision tables. The Kobe II Strategy Matrix provides a clear format to convey quantitative advice about uncertainty. Recommendations for communicating stressed that standardized executive summaries should be developed for consideration for use by all tuna RFMOs for summarizing stock status and management recommendations.

Discussion

It was noted that the recommendations did not include using a precautionary approach. It was suggested that this is because the precautionary approach is considered a management

requirement, not a science priority.

11.7 Up-date of Operations Manual

R. Sanford reviewed proposed changes and updates to the ISC Operations Manual *(ISC/10/PLENARY/09)*. The ISC Chairman asked that delegates review changes to the manual and provide comments by 2 October 2010.

Discussion

The ISC Chairman noted that the STATWG had reviewed the data reporting protocol (*Attachment 2* in *ISC/10/PLENARY/09*) and its proposed changes were incorporated in the version presented to Plenary. He also pointed out the new and revised sections to the manual needing review including the Webmaster responsibilities and changes to the WG report guidelines. A number of issues needing revision, including bycatch coding, and the code for Blue Marlin, were also discussed. An electronic version of the complete revised Operations Manual will be sent to ISC Members after ISC10.

The Plenary agreed that the STATWG Chairman would circulate additional revisions of the DA responsibilities by correspondence to the WG in order to expedite inclusion of a final version in the revised manual. Suggested changes to all sections of the Operations Manual are due by 2 October 2010. The goal is to publish the revised manual by the end of 2010.

11.8 Status of NC Research Proposal

The ISC Chairman submitted four funding proposals to WCPFC NC5 in September 2009 for: (1) a biological sampling research program, (2) North Pacific albacore sampling program, (3) database administration, and (4) website administration. NC5 agreed that CCMs could elect to provide voluntary contributions for the proposals. During ISC10, S.K. Soh (WCPFC) circulated a Commission Circular (2009/16) regarding a "draft administrative arrangement" developed by WCPFC Secretariat to secure financial contributions from NC Members.

S.K. Soh indicated that the WCPFC Secretariat requests that ISC10 and NC Members consider the following and review the draft administrative arrangement that will be considered by NC6: Does ISC have sufficient legal personality and the capacity to receive, administer and acquit funds from an IGO such as WCPFC?

Discussion

The ISC Chairman clarified that ISC prepared the package of proposals for NC; NC submitted the proposals to WCPFC. The proposals were constructed by principal investigators who work for agencies of WCPFC Members. The structure of the proposals is similar to the research proposals of the WCPFC SC. ISC currently does not have legal personality and therefore is not prepared to receive funding and administer funding to the principal investigators.

11.9 Other Administrative Matters

A general question was raised about the availability of delegation reports in advance of the meeting for reviewing. The ISC Chairman clarified that to date it has been difficult to implement a policy of early distribution of Plenary documents because most delegation reports have been received just before the meeting and some are not ready for distribution. Nonetheless, the Office of the Chairman will try to make delegation reports available in advance of the Plenary session, at least a day before the start of Plenary.

12 ADOPTION OF REPORT

A draft Report of the Tenth session of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean was prepared based on input and comment from all participants, and circulated to all participants for review. The report was reviewed in its entirety, section by section and was approved by the ISC10 Plenary, subject to editorial corrections to be made by the ISC Chairman.

13 CLOSE OF MEETING

G. Sakagawa thanked the Department of Fisheries and Oceans, Canada, especially John Holmes, for the excellent organization and hosting of the meeting. He thanked sponsors, including the Canadian Highly Migratory Species Foundation and the American Fishermen's Research Foundation for hosting receptions, Judith Wilson for her volunteer help with logistics, and the participants for their contributions to a successful meeting. He wished the Chairman Elect, Gerard DiNardo, success and indicated his commitment to helping in the transition. G. Sakagawa closed the successful meeting on 26 July 2010

Table 5. Tentative schedule of ISC meetings for 2010-2012

[BILLWG= Billfish Working Group; PBFWG= Pacific Bluefin Tuna WG; BCWG = Bycatch WG; ALBWG = Albacore WG, STATWG = Statistics WG]

Date	Meeting	Contact
2010		
Oct 12-26	ALBWG Workshop– La Jolla, CA, USA (8 days Data preparation)	J. Holmes John.Holmes@dfo-mpo.gc.ca
2011		
Jan 6-13	PBFWG Workshop – Shimizu, Japan (Model improvement)	Y. Takeuchi Yukiot@fra.affrc.go.jp
Jan 19-27	BILLWG Workshop – Honolulu, HI, USA (Data preparation)	G. DiNardo Gerard.DiNardo@noaa.gov
Feb/Mar	Shark WG Workshop – TBD (5 day Organization meeting)	G. DiNardo
Mar 22-29	ALBWG Workshop– Shimizu, Japan (Full stock assessment)	J. Holmes
May 19-27	BILLWG Workshop – TBD (Striped marlin stock assessment)	G. DiNardo
Jul 14-15	ALBWG – TBD (Results preparation)	J. Holmes
Jul 16	PBFWG – TBD (Review)	Y. Takeuchi
Jul 16	BILLWG – TBD (Results preparation)	G. DiNardo
Jul 17-19	STATWG – TBD (Workshop)	S.-K. Chang SKChang@faculty.nsyu.edu.tw
Jul 20-25	ISC11 – TBD (Plenary)	TBD
Nov	PBFWG – TBD (Data preparation)	Y. Takeuchi
Dec	BILLWG -- TBD (Data preparation)	G. DiNardo
2012		
Apr	BILLWG Workshop– TBD (Blue marlin stock assessment)	G. DiNardo

May	PBFWG Workshop– TBD (Full stock assessment)	Y. Takeuchi
Jul	ISC12 – TBD (Plenary)	TBD

Table 1. **[1]Annual catch of North Pacific albacore (*Thunnus alalunga*) in metric tons for fisheries monitored by ISC for assessments of North Pacific Ocean stocks, 1952-2009. Blank indicates no effort. - indicates data not available. 0 indicates less than 1 metric ton. Provisional estimates in ().**

Year	Japan							Korea		Chinese-Taipei		
	Purse Seine	Gill Net	Set Net	Pole and Line	Troll	Longline	Other	Gill Net	Longline	Gill Net	Distant Water Longline	Offshore Longline
1952	154		55	41,787	--	26,687	182					
1953	38		88	32,921	--	27,777	44					
1954	23		6	28,069	--	20,958	32					
1955	8		28	24,236	--	16,277	108					
1956			23	42,810	--	14,341	34					
1957	83		13	49,500	--	21,053	138					
1958	8		38	22,175	--	18,432	86					
1959			48	14,252	--	15,802	19					
1960			23	25,156	--	17,369	53					
1961	7		111	18,639	--	17,437	157					
1962	53		20	8,729	--	15,764	171					
1963	59		4	26,420	--	13,464	214					
1964	128		50	23,858	--	15,458	269					
1965	11		70	41,491	--	13,701	51					
1966	111		64	22,830	--	25,050	521					
1967	89		43	30,481	--	28,869	477				330	
1968	267		58	16,597	--	23,961	1,051				216	
1969	521		34	31,912	--	18,006	925				65	
1970	317		19	24,263	--	16,222	498				34	
1971	902		5	52,957	--	11,473	354		0		20	
1972	277	1	6	60,569	--	13,022	638		0		187	
1973	1,353	39	44	68,767	--	16,760	486		3		--	
1974	161	224	13	73,564	--	13,384	891		114		486	
1975	159	166	13	52,152	--	10,303	230		9,575		1,240	
1976	1,109	1,070	15	85,336	--	15,812	270		2,576		686	
1977	669	688	5	31,934	--	15,681	365		459		572	
1978	1,115	4,029	21	59,877	--	13,007	2,073		1,006		6	
1979	125	2,856	16	44,662	--	14,186	1,139	0			81	
1980	329	2,986	10	46,742	--	14,681	1,177	6	402	--	249	
1981	252	10,348	8	27,426	--	17,878	699	16		--	143	
1982	561	12,511	11	29,614	--	16,714	482	113	5,462	--	38	
1983	350	6,852	22	21,098	--	15,094	99	233	911	--	8	
1984	3,380	8,988	24	26,013	--	15,053	494	516	2,490	--	--	
1985	1,533	11,204	68	20,714	--	14,249	339	576	1,188	--	--	
1986	1,542	7,813	15	16,096	--	12,899	640	726	923	--	--	
1987	1,205	6,698	16	19,082	--	14,668	173	817	607	2,514	--	
1988	1,208	9,074	7	6,216	--	14,688	170	1,016	175	7,389	--	
1989	2,521	7,437	33	8,629	--	13,031	433	1,023	27	8,350	40	
1990	1,995	6,064	5	8,532	--	15,785	248	1,016	1	16,701	4	
1991	2,652	3,401	4	7,103	--	17,039	395	852	0	3,398	12	
1992	4,104	2,721	12	13,888	--	19,042	1,522	271	1	7,866	--	
1993	2,889	287	3	12,797	--	29,933	897		21		5	
1994	2,026	263	11	26,389	--	29,565	823		54		83	
1995	1,177	282	28	20,981	856	29,050	78		14		4,280	
1996	581	116	43	20,272	815	32,440	127		158		7,596	
1997	1,068	359	40	32,238	1,585	38,899	135		404		9,119	337
1998	1,554	206	41	22,926	1,190	35,755	104		226		8,617	193
1999	6,872	289	90	50,369	891	33,339	62		99		8,186	207
2000	2,408	67	136	21,550	645	29,995	86		15		7,898	944
2001	974	117	78	29,430	416	28,801	35		64		7,852	832
2002	3,303	332	109	48,454	787	23,585	85		112		7,055	910
2003	627	126	69	36,114	922	20,907	85		146		6,454	712
2004	7,200	61	30	32,255	772	17,341	54		78		4,061	927
2005	850	154	97	16,133	665	20,420	234		420		3,990	483
2006	364	221	55	15,400	460	21,027	42		138		3,848	469
2007	5,682	226	30	37,768	519	22,336	44		56		2,465	451
2008	825	1,531	101	19,060	549	22,386	(15)		365		2,490	579
2009	(2,151)	(1,531)	(101)	(32,421)	(549)	(17,518)	(15)		(365)		(1,866)	(512)

1 **Data are from the ISC albacore working group July 12 2010, except as noted**

2 **Albacore pole-and-line catches for 2008 and 2009 are estimated from new procedures.**

3 **Albacore troll catches prior to 2008 contain an unknown proportion of pole and line catch.**

4 **Mexico Pole and line catches for 1999 and 2000 include 34 and 4 metric tons, respectively from longline.**

5 **Other troll catches are from vessels registered in Belize, Cook Islands, Tonga, and Ecuador.**

6 **Updates for Other Longline 2004-2009 from Peter Williams, pers. com.**

Table 1 (continued)

Year	United States								Mexico		Canada	Other		Grand Total
	Purse Seine	Gill Net	Pole and Line [2]	Albacore Troll [3]	Tropical Troll & Handline	Sport	Longline	Other	Purse Seine	Pole and Line [4]	Troll	Troll [5]	Longline [6]	
1952				23,843		1,373	46				71			94,198
1953				15,740		171	23				5			76,807
1954				12,246		147	13							61,494
1955				13,264		577	9							54,507
1956				18,751		482	6				17			76,464
1957				21,165		304	4				8			92,268
1958				14,855		48	7				74			55,723
1959				20,990		0	5				212			51,328
1960				20,100		557	4				141			63,403
1961			2,837	12,055		1,355	5	1	2	39	4			52,649
1962			1,085	19,752		1,681	7	1	0	0	1			47,264
1963			2,432	25,140		1,161	7		31	0	5			68,937
1964			3,411	18,388		824	4		0		3			62,393
1965			417	16,542		731	3	1	0		15			73,033
1966			1,600	15,333		588	8		0		44			66,149
1967			4,113	17,814		707	12				161			83,096
1968			4,906	20,434		951	11				1,028			69,480
1969			2,996	18,827		358	14		0		1,365			75,023
1970			4,416	21,032		822	9		0		390			68,022
1971			2,071	20,526		1,175	11		0		1,746			91,240
1972			3,750	23,600		637	8		100	0	3,921			106,716
1973			2,236	15,653		84	14		0		1,400			106,839
1974			4,777	20,178		94	9		1	0	1,331			115,227
1975			3,243	18,932		640	33	10	1	0	111			96,808
1976			2,700	15,905		713	23	4	36	5	278			126,538
1977			1,497	9,969		537	37		3	0	53			62,469
1978			950	16,613		810	54	15	1	0	23			99,600
1979			303	6,781		74	--		1	0	521			70,745
1980			382	7,556		168	--		31	0	212			74,931
1981			748	12,637		195	25		8	0	200			70,583
1982			425	6,609		257	105	21	0	0	104			73,027
1983			607	9,359		87	6		0	0	225			54,951
1984	3,728		1,030	9,304		1,427	2		107	6	50			72,612
1985	26	2	1,498	6,415	7	1,176	0		14	35	56			59,100
1986	47	3	432	4,708	5	196			3	0	30			46,078
1987	1	5	158	2,766	6	74	150		7	0	104			49,051
1988	17	15	598	4,212	9	64	307	10	15	0	155			45,345
1989	1	4	54	1,860	36	160	248	23	2	0	140			44,052
1990	71	29	115	2,603	15	24	177	4	2	0	302			53,693
1991	0	17	0	1,845	72	6	312	71	2	0	139			37,320
1992	0	0	0	4,572	54	2	334	72	10	0	363			54,833
1993		0	0	6,254	71	25	438		11	0	494			54,125
1994		38	0	10,978	90	106	544	213	6	0	1,998	158		73,345
1995		52	80	8,045	177	102	882	1	5	0	1,763	94		67,947
1996	11	83	24	16,938	188	88	1,185		21	0	3,316	469	1,735	86,207
1997	2	60	73	14,252	133	1,018	1,653	1	53	0	2,168	336	2,824	106,756
1998	33	80	79	14,410	88	1,208	1,120	2	8	0	4,177	341	5,871	98,229
1999	48	149	60	10,060	331	3,621	1,542	1	0	57	2,734	228	6,307	125,542
2000	4	55	69	9,645	120	1,798	940	3	70	33	4,531	386	3,654	85,052
2001	51	94	139	11,210	194	1,635	1,295		5	18	5,248	230	1,471	90,189
2002	4	30	381	10,387	235	2,357	525		28	0	5,379	466	700	105,224
2003	44	16	59	14,102	85	2,214	524		28	0	6,861	378	(2,400)	(92,804)
2004	1	12	127	13,346	157	1,506	361		104	0	7,856	--	4,096	90,316
2005		20	66	8,413	175	1,719	296		0	0	4,845	--	4,168	63,052
2006		3	23	12,524	95	385	270		109	0	5,832	--	5,039	66,249
2007		4	21	11,887	98	1,225	250		40	0	6,075	--	3,510	92,687
2008	0	1	1,050	10,672	29	257	353	0	10		5,478		2,777	(68,528)
2009	(39)	(3)	(2,084)	(10,686)	(99)	(541)	(203)	(0)	(17)		(5,685)		(1,553)	(77,939)

Table 2. **Annual catch of Pacific bluefin tuna (*Thunnus orientalis*) in metric tons for fisheries monitored by ISC for assessments of North Pacific Ocean stocks, 1952-2009. Blank indicates no effort. - indicates data not available. 0 indicates less than 1 metric ton. Provisional estimates in ().**

Year	Japan [1]									Korea [3]	
	Purse Seine		Pole and Line	Set Net	Troll [2]	Distant Water & Offshore Longline		Coastal	Others	Purse Seine	Trawl
	Tuna PS	Small PS				NP	SP	Longline			
1952	7,680		2,198	2,145	667	2,694	9		1,700		
1953	5,570		3,052	2,335	1,472	3,040	8		160		
1954	5,366		3,044	5,579	1,656	3,088	28		266		
1955	14,016		2,841	3,256	1,507	2,951	17		1,151		
1956	20,979		4,060	4,170	1,763	2,672	238		385		
1957	18,147		1,795	2,822	2,392	1,685	48		414		
1958	8,586		2,337	1,187	1,497	818	25		215		
1959	9,996		586	1,575	736	3,136	565		167		
1960	10,541		600	2,032	1,885	5,910	193		369		
1961	9,124		662	2,710	3,193	6,364	427		599		
1962	10,657		747	2,545	1,683	5,769	413		293		
1963	9,786		1,256	2,797	2,542	6,077	449		294		
1964	8,973		1,037	1,475	2,784	3,140	114		1,884		
1965	11,496		831	2,121	1,963	2,569	194		1,106		
1966	10,082		613	1,261	1,614	1,370	174		129		
1967	6,462		1,210	2,603	3,273	878	44		302		
1968	9,268		983	3,058	1,568	500	7		217		
1969	3,236		721	2,187	2,219	313	20	565	195		
1970	2,907		723	1,779	1,198	181	11	426	224		
1971	3,721		938	1,555	1,492	280	51	417	317		
1972	4,212		944	1,107	842	107	27	405	197		
1973	2,266		526	2,351	2,108	110	63	728	636		
1974	4,106		1,192	6,019	1,656	108	43	1,069	754		
1975	4,491		1,401	2,433	1,031	215	41	846	808		
1976	2,148		1,082	2,996	830	87	83	233	1,237		
1977	5,110		2,256	2,257	2,166	155	23	183	1,052		
1978	10,427		1,154	2,546	4,517	444	7	204	2,276		
1979	13,881		1,250	4,558	2,655	220	35	509	2,429		
1980	11,327		1,392	2,521	1,531	140	40	671	1,953		
1981	25,422		754	2,129	1,777	313	29	277	2,653		
1982	19,234		1,777	1,667	864	206	20	512	1,709	31	
1983	14,774		356	972	2,028	87	8	130	1,117	13	
1984	4,433		587	2,234	1,874	57	22	85	868	4	
1985	4,154		1,817	2,562	1,850	38	9	67	1,175	1	
1986	7,412		1,086	2,914	1,467	30	14	72	719	344	
1987	8,653		1,565	2,198	880	30	33	181	445	89	
1988	3,583	22	907	843	1,124	51	30	106	498	32	
1989	6,077	113	754	748	903	37	32	172	283	71	
1990	2,834	155	536	716	1,250	42	27	267	455	132	
1991	4,336	5,472	286	1,485	2,069	48	20	170	650	265	
1992	4,255	2,907	166	1,208	915	85	16	428	1,081	288	
1993	5,156	1,444	129	848	546	145	10	667	365	40	
1994	7,345	786	162	1,158	4,111	238	20	968	398	50	
1995	5,334	13,575	270	1,859	4,778	107	10	571	586	821	
1996	5,540	2,104	94	1,149	3,640	123	9	778	570	102	
1997	6,137	7,015	34	803	2,740	142	12	1,158	811	1,054	
1998	2,715	2,676	85	874	2,865	169	10	1,086	700	188	
1999	11,619	4,554	35	1,097	3,387	127	17	1,030	709	256	
2000	8,193	8,293	102	1,125	5,121	121	7	832	689	1,976	0
2001	3,139	4,481	180	1,366	3,329	63	6	728	782	968	10
2002	4,171	5,102	99	1,100	2,427	47	5	794	631	767	1
2003	1,033	5,399	44	839	1,839	85	12	1,152	446	2,141	0
2004	4,844	2,577	132	896	2,182	231	9	1,616	514	636	0
2005	4,061	7,390	549	2,182	3,406	107	14	1,818	548	1,085	
2006	3,962	3,272	108	1,421	1,544	63	11	1,058	777	949	
2007	3,058	2,841	236	1,503	2,385	83	8	2,226	1,209	1,054	
2008	2,954	6,299	64	2,358	2,767	19	8	1,476	1,192	1,536	
2009	2,071	5,353	50	(1,985)	1,897	0[7]	0[7]	(1,052)	913	794	

1 Part of Japanese catch is estimated by the WG from best available source for the stock assessment use.

2 The troll catch for farming estimating 10 - 20 mt since 2000, is excluded.

3 Catch statistics of Korea derived from Japanese Import statistics for 1982-1999.

4 US in 1952-1958 contains catch from other countries - primarily Mexico. Other includes catches from gillnet, troll, pole-and-line, and longline

5 Catches by NZ are derived from the Ministry of Fisheries, Science Group (Compilers) 2006: Report from the Fishery Assessment Plenary, May 2006: stock assessments and yield estimates. 875 p. (Unpublished report held in NIWA library,

6 Other countries include AUS, Cooks, Palau and so on. Catches derived from Japanese Imort Statistics as minimum estimates.

7 The catch for Japanese coastal longline in 2008 includes that of the distant water and offshore longliners.

8 Catches in New Zealand and Other countries since 2007 are carry-over of that in 2005

Table 2 (continued)

Year	Chinese-Taipei				United States [4]			Mexico		non-ISC members		Grand Total
	Purse Seine	Distant Driftnet	Longline	Others	Purse Seine	Sport	Others	Purse Seine	Others	New Zealand [5]	Others [6]	
1952					2,076	2						19,172
1953					4,433	48						20,117
1954					9,537	11						28,575
1955					6,173	93						32,005
1956					5,727	388						40,383
1957					9,215	73						36,590
1958					13,934	10						28,610
1959					3,506	13	56	171	32			20,539
1960					4,547	1	0					26,079
1961					7,989	23	16	130				31,236
1962					10,769	25	0	294				33,195
1963					11,832	7	28	412				35,481
1964					9,047	7	39	131				28,631
1965			54		6,523	1	77	289				27,224
1966					15,450	20	12	435				31,161
1967			53		5,517	32	0	371				20,745
1968			33		5,773	12	8	195				21,623
1969			23		6,657	15	9	260				16,419
1970					3,873	19	0	92				11,432
1971			1		7,804	8	0	555				17,140
1972			14		11,656	15	45	1,646				21,216
1973			33		9,639	54	21	1,084				19,619
1974			47	15	5,243	58	30	344				20,685
1975			61	5	7,353	34	84	2,145				20,948
1976			17	2	8,652	21	25	1,968				19,381
1977			131	2	3,259	19	13	2,186				18,811
1978			66	2	4,663	5	6	545				26,863
1979			58		5,889	11	6	213				31,715
1980			114	5	2,327	7	24	582				22,634
1981			179		867	9	14	218				34,641
1982		2	207		2,639	11	2	506				29,387
1983	9	2	175		629	33	11	214				20,557
1984	5		477	8	673	49	29	166				11,573
1985	80	11	210		3,320	89	28	676				16,089
1986	16	13	70		4,851	12	57	189				19,266
1987	21	14	365		861	34	20	119				15,507
1988	197	37	108	25	923	6	50	447	1			8,989
1989	259	51	205	3	1,046	112	21	57				10,943
1990	149	299	189	16	1,380	65	92	50				8,653
1991		107	342	12	410	92	6	9		2		15,781
1992	73	3	464	5	1,928	110	61	0		0		13,995
1993	1		471	3	580	298	103			6		10,811
1994			559		906	89	59	63	2	2		16,916
1995			335	2	657	258	49	11		2		29,225
1996			956		4,639	40	70	3,700		4		23,519
1997			1,814		2,240	156	133	367		14		24,632
1998			1,910		1,771	413	281	1	0	20		15,763
1999			3,089		184	441	184	2,369	35	21		29,153
2000			2,780	2	693	342	61	3,019	99	21		33,475
2001			1,839	4	292	356	48	863		50		18,504
2002			1,523	4	50	654	12	1,708	2	55	10	19,164
2003			1,863	21	22	394	18	3,211	43	41	19	18,622
2004			1,714	3		49	11	8,880	14	67	10	24,384
2005			1,368		201	79	7	4,542		20	7	27,384
2006			1,149			96	2	9,806		21	3	24,242
2007			1,401		42	14	2	4,147		(21) [8]	(3) [8]	(20,209)
2008			979			93	1	4,392	15	(21) [8]	(3) [8]	(24,153)
2009			892		(410)	(151)	(5)	3,019		(21) [8]	(3) [8]	(18,953)

Table 3. **Annual catch of Swordfish (*Xiphias gladius*) in metric tons for fisheries monitored by ISC for assessments of North Pacific Ocean stocks, 1951-2008. Blank indicates no effort. - indicates data not available. 0 indicates less than 1 metric ton. Provisional estimates in ().**

Year	Japan							Chinese Taipei									
	Distant Water& Offshore Longline [2]	Coastal Longline	Driftnet	Harpoon [3]	Other Bait fishing	Trapnet	Other [4]	Distant Water Longline	Offshore [5] Longline	Offshore Gillnet	Offshore Others	Coastal Harpoon	Coastal Setnet	Coastal Gillnet & Other net	Coastal Longline	Coastal Others	Other
1951	7,246	115	10	4,131	88	78	10										
1952	8,890	152	0	2,569	6	68	6	-	-								
1953	10,796	77	0	1,407	20	21	87	-	-								
1954	12,563	96	0	813	104	18	17	-	-								
1955	13,064	29	0	821	119	37	41	-	-								
1956	14,596	10	0	775	66	31	7	-	-								
1957	14,268	37	0	858	59	18	11	-	-								
1958	18,525	42	0	1,069	46	31	21	-	-								
1959	17,236	66	0	891	34	31	10	-	427								91
1960	20,058	51	1	1,191	23	67	7	-	520								127
1961	19,715	51	2	1,335	19	15	11	-	318								73
1962	10,607	78	0	1,371	26	15	18	-	494								62
1963	10,322	98	0	747	43	17	16	-	343								18
1964	7,669	91	4	1,006	40	16	26	-	358								10
1965	8,742	119	0	1,908	26	14	182	-	331								27
1966	9,866	113	0	1,728	41	11	4	-	489								31
1967	10,883	184	0	891	33	12	5	-	646								35
1968	9,810	236	0	1,539	41	14	9	-	763								12
1969	9,416	296	0	1,557	42	11	14	0	843								7
1970	7,324	427	0	1,748	36	9	3	-	904								5
1971	7,037	350	1	473	17	37	31	-	992								3
1972	6,796	531	55	282	20	1	2	-	862								11
1973	7,123	414	720	121	27	23	2	-	860								119
1974	5,983	654	1,304	190	27	16	2	1	880								136
1975	7,031	620	2,672	205	58	18	2	29	899								153
1976	8,054	750	3,488	313	170	14	12	23	613								194
1977	8,383	880	2,344	201	71	7	2	36	542								141
1978	8,001	1,031	2,475	130	110	22	1	-	546								12
1979	8,602	1,038	983	161	45	15	4	7	661								33
1980	6,005	849	1,746	398	29	15	1	10	603								76
1981	7,039	727	1,848	129	58	9	3	2	656								25
1982	6,064	874	1,257	195	58	7	1	1	855								49
1983	7,692	999	1,033	166	30	9	2	0	783								166
1984	7,177	1,177	1,053	117	98	13	0	-	733								264
1985	9,335	999	1,133	191	69	10	0	-	566								259
1986	8,721	1,037	1,264	123	47	9	0	-	456								211
1987	9,495	860	1,051	87	45	11	0	3	1,328								190
1988	8,574	678	1,234	173	19	8	0	-	777								263
1989	6,690	752	1,596	362	21	10	0	50	1,491								38
1990	5,833	690	1,074	128	13	4	0	143	1,309								154
1991	4,809	807	498	153	20	5	0	40	1,390								180
1992	7,234	1,181	887	381	16	6	0	21	1,473								243
1993	8,298	1,394	292	309	43	4	1	54	1,174								310
1994	7,366	1,357	421	308	37	4	0	-	1,155								219
1995	6,422	1,387	561	423	34	7	0	50	1,135								225
1996	6,916	1,067	428	597	45	4	0	9	701	2	-	19	10	-	-	-	
1997	7,002	1,214	365	346	62	5	0	15	1,358	1	1	27	8	-	24	-	
1998	6,233	1,190	471	476	68	2	0	20	1,178	8	-	17	15	1	-	-	
1999	5,557	1,049	724	416	47	5	0	70	1,385	4	-	51	5	1	-	-	
2000	6,180	1,121	808	497	49	5	0	325	1,531	5	-	74	5	1	1	-	
2001	6,932	908	732	230	30	15	0	1,039	1,691	17	-	64	8	1	1	-	
2002	6,230	965	1,164	201	29	11	0	1,633	1,557	7	1	1	16	1	1	-	
2003	5,376	1,063	1,198	149	28	4	0	1,084	2,196	3	-	-	8	-	-	-	
2004	5,395	1,509	1,062	229	30	4	0	884	1,828	5	-	-	7	1	-	3	
2005	5,359	1,295	956	187	337	3	0	437	1,813	1	-	-	5	2	-	18	
2006	6,181	1,508	796	244	342	5	1										
2007	(6,109)	(2,017)	(829)	(122)	(367)	(2)	(1)										
2008	(4,426)	(1,758)	(648)	(173)	(349)	(3)	(0)										

[1] Catch data are currently unavailable for Republic of Korea, Philippines, and some other countries catching swordfish in the North Pacific.
[2] Catches by gear for 1952-1970 were estimated roughly using FAO statistics and other data. Catches for 1971-2002 are more reliably estimated.
[3] Contrains trolling and harpoon but majority of catch obtained by harpoon.
[4] For 1952-1970 "Other" refers to catches by net fishing and various unspecified gears.
[5] Offshore longline category includes some catches from harpoon and other fisheries but does not include catches unloaded in foreign ports.
[6] Estimated round weight of retained catch. Does not include discards.
[7] Unknown includes pole and line, purse seine, troll and troll/handline, half ring, and unspecified gears.

Table 3 (continued)

Year	Korea		Mexico	United States					Grand Total
	Longline	Hi-seas Driftnet	All Gears	Hawaii Longline	California Longline	California Gill Net	California Harpoon	California Unknown [7]	
1951									11,678
1952	-		-	-	-	-	-	-	11,691
1953	-		-	-	-	-	-	-	12,408
1954	-		-	-	-	-	-	-	13,610
1955	-		-	-	-	-	-	-	14,111
1956	-		-	-	-	-	-	-	15,486
1957	-		-	-	-	-	-	-	15,251
1958	-		-	-	-	-	-	-	19,734
1959	-		-	-	-	-	-	-	18,785
1960	-		-	-	-	-	-	-	22,047
1961	-		-	-	-	-	-	-	21,538
1962	-		-	-	-	-	-	-	12,671
1963	-		-	-	-	-	-	-	11,605
1964	-		-	-	-	-	-	-	9,220
1965	-		-	-	-	-	-	-	11,349
1966	-		-	-	-	-	-	-	12,283
1967	-		-	-	-	-	-	-	12,689
1968	-		-	-	-	-	-	-	12,424
1969	-		-	-	-	-	-	-	12,186
1970	-		-	5	-	-	612	10	11,083
1971	0		-	1	-	-	99	3	9,044
1972	0		2	0	-	-	171	4	8,737
1973	0		4	0	-	-	399	4	9,816
1974	0		6	0	-	-	406	22	9,627
1975	0		-	0	-	-	557	13	12,257
1976	0		-	0	-	-	42	13	13,686
1977	219		-	17	-	-	318	19	13,180
1978	68		-	9	-	-	1,699	13	14,117
1979	-		7	7	-	-	329	57	11,949
1980	64		380	5	-	160	566	62	10,969
1981	-		1,575	3	0	473	271	2	12,820
1982	48		1,365	5	0	945	156	10	11,890
1983	11		120	5	0	1,693	58	7	12,774
1984	48		47	3	12	2,647	104	75	13,568
1985	24		18	2	0	2,990	305	104	16,005
1986	9		422	2	0	2,069	291	109	14,770
1987	44		550	24	0	1,529	235	31	15,483
1988	27		613	24	0	1,376	198	64	14,028
1989	40		690	218	0	1,243	62	56	13,319
1990	61		2,650	2,436	0	1,131	64	43	15,733
1991	5		861	4,508	27	944	20	44	14,311
1992	8		1,160	5,700	62	1,356	75	47	19,850
1993	15		812	5,909	27	1,412	168	161	20,383
1994	66		581	3,176	631	792	157	24	16,294
1995	10		437	2,713	268	771	97	29	14,569
1996	15		439	2,502	346	761	81	15	13,957
1997	100		2,365	2,881	512	708	84	11	17,089
1998	153		3,603	3,263	418	931	48	19	18,114
1999	132		1,136	3,100	1,229	606	81	27	15,625
2000	202		2,216	2,949	1,885	646	90	9	18,599
2001	438		780	220	1,749	375	52	5	15,287
2002	439		465	204	1,320	302	90	3	14,640
2003	381		671	147	1,812	216	107	0	14,443
2004	410		270	213	898	169	62	37	13,016
2005	434		235	1,475		220	76	0	12,853
2006	477		347	1,175		444	71	2	11,593
2007	452		383	1,444		484	58	0	(12,267)
2008			(84)						(7,441)

Table 4. **Annual catch of striped marlin *(Kajikia audax)* in metric tons for fisheries monitored by ISC for assessments of North Pacific Ocean stocks, 1951-2008. Blank indicates no effort. - indicates data not available. 0 indicates less than 1 metric ton. Provisional estimates in ().**

Year	Japan						Chinese Taipei										
	Distant Water & Offshore Longline	Coastal Longline	Other Longline	Gill Net Small Mesh	Gill Net Large Mesh	Other [2]	Distant Water Longline	High-sea DriftGillnet	Offshore Longline	Offshore Gillnet	Offshore Others	Coastal Harpoon	Coastal Setnet	Coastal Gillnet & Other net	Coastal Longline	Coastal Others	Other
1951	2,494	-	673	-	0	1,281											
1952	2,901	-	722	-	0	1,564											
1953	2,138	-	47	-	0	954											
1954	3,068	-	52	-	0	1,088											
1955	3,082	-	28	-	0	1,038											
1956	3,729	-	59	-	0	1,996											
1957	3,189	-	119	-	0	2,459											
1958	4,106	-	277	-	3	2,914			543								387
1959	4,152	-	156	-	2	3,191			391								354
1960	3,862	-	101	-	4	1,937			398								350
1961	4,420	-	169	-	2	1,797			306								342
1962	5,739	-	110	-	8	1,912			332								211
1963	6,135	-	62	-	17	1,910			560								199
1964	14,304	-	42	-	2	2,344			392								175
1965	11,602	-	19	0	1	2,794			355								157
1966	8,419	-	112	0	2	1,570			370								180
1967	11,698	-	127	0	3	1,551	2		385								204
1968	15,913	-	230	0	0	1,043	1		332								208
1969	8,544	600	3	0	3	2,668	2		571								192
1970	12,996	690	181	0	3	1,032	0		495								189
1971	10,965	667	259	0	10	2,042	0		449								135
1972	7,006	837	145	0	243	993	9		380								126
1973	6,357	632	118	0	3,265	702	1		568								139
1974	6,700	327	49	0	3,112	775	24		650								118
1975	5,281	286	38	0	6,534	686	64		732								96
1976	5,136	244	34	0	3,561	585	32		347								140
1977	3,019	256	15	0	4,424	547	17		524								219
1978	3,957	243	27	0	5,593	546	0		618								78
1979	5,561	366	21	0	2,532	526	26		432								122
1980	6,378	607	5	0	3,467	536	61		223								132
1981	4,106	259	12	0	3,866	542	17		491								95
1982	5,383	270	13	0	2,351	656	7		397								138
1983	3,722	320	10	22	1,845	827	0		555								214
1984	3,506	386	9	76	2,257	719	0		965								330
1985	3,897	711	24	40	2,323	733	0		513								181
1986	6,402	901	33	48	3,536	577	0		179								148
1987	7,538	1,187	6	32	1,856	513	31		383								151
1988	6,271	752	7	54	2,157	668	7		457								169
1989	4,740	1,081	13	102	1,562	537	8		184								157
1990	2,368	1,125	3	19	1,926	545	2		137								256
1991	2,845	1,197	3	27	1,302	507	36		254								286
1992	2,955	1,247	10	35	1,169	303	1		219								197
1993	3,476	1,723	1	-	828	708	5		221								142
1994	2,911	1,284	1	-	1,443	383	1		137								196
1995	3,494	1,840	3	-	970	283	27		83								82
1996	1,951	1,836	4	-	703	152	26		162	8	6	30	3	-	-	-	
1997	2,120	1,400	3	-	813	163	59		290	9	-	33	3	-	2	-	
1998	1,784	1,975	2	-	1,092	304	90		205	15	-	19	6	1	9	-	
1999	1,608	1,551	4	-	1,126	184	66		128	7	-	26	5	1	3	-	
2000	1,152	1,109	8	-	1,062	297	153		161	17	1	29	6	1	1	-	
2001	985	1,326	11	-	1,077	237	121		129	16	-	30	5	-	-	-	
2002	764	796	5	-	1,264	290	251		226	14	-	6	8	1	-	-	
2003	1,013	842	3	-	1,064	203	241		91	26	-	11	5	1	-	-	
2004	699	1,000	2	-	1,339	92	261		95	8	1	7	5	2	-	1	
2005	562	668	1	-	1,214	98	176		76	1	-	5	9	9	-	8	
2006	623	539	1	-	1,190	95											
2007	(306)	(860)	(5)	(-)	(970)	(79)											
2008	(394)	(606)	(10)	(-)	(1,302)	(97)											

[1] Estimated from catch in number of fish

[2] Contrains bait fishing, net fishing, trapnet, trolling, harpoon, etc.

Table 4 (continued)

Year	Costa Rica	Korea		Mexico		United States				Grand Total
	Sport [1]	Longline	Hi-seas DriftGillnet	Longline	Sport [1]	Longline	Troll	Handline	Sport [1]	
1951										4,448
1952		-							23	5,210
1953		-							5	3,144
1954		-							16	4,223
1955		-							5	4,153
1956		-							34	5,819
1957		-							42	5,809
1958		-							59	8,289
1959		-							65	8,311
1960		-							30	6,682
1961		-							24	7,060
1962		-							5	8,317
1963		-							68	8,951
1964		-							58	17,317
1965		-							23	14,951
1966		-							36	10,689
1967		-							49	14,019
1968		-							51	17,778
1969		-							30	12,613
1970		-							18	15,604
1971		0							17	14,544
1972		0							21	9,760
1973		0							9	11,791
1974		0							55	11,810
1975		0							27	13,744
1976		0							31	10,110
1977		43							41	9,105
1978		28							37	11,127
1979		-							36	9,622
1980		37							33	11,479
1981		-							60	9,448
1982		39							41	9,295
1983		19							39	7,573
1984		23							36	8,307
1985		16					18		42	8,498
1986		61		-			19		19	11,923
1987		1		-		272	30	1	28	12,029
1988		11		-		504	54		30	11,141
1989		26		-		612	24	0	52	9,098
1990		315		-	181	538	27	0	23	7,465
1991	106	141		-	75	663	41	0	12	7,495
1992	281	318		-	142	459	38	1	25	7,400
1993	438	388		-	159	471	68	1	11	8,640
1994	521	1,045		-	179	326	35	0	17	8,479
1995	153	307		-	190	543	52	0	14	8,041
1996	122	429		-	237	418	54	1	20	6,162
1997	138	1,017		-	193	352	38	1	21	6,655
1998	144	635		-	345	378	26	0	23	7,053
1999	166	433		-	266	364	28	1	12	5,979
2000	97	537		-	312	200	14	1	10	5,168
2001	151	254		-	237	351	42	2		4,974
2002	76	188		-	305	226	30	0		4,450
2003	79	206		-	322	552	29	0		4,687
2004	(19)	75		-	-	376	34	1		4,017
2005	-	141		-	-	493	20	0		3,481
2006		56				609	21	0		(3,134)
2007		28				265	13	0		(2,526)
2008										(2409)

SIXTH MEETING OF THE NORTHERN COMMITTEE
SUMMARY OF OUTCOMES

The sixth meeting of the Western and Central Pacific Fishery Commission (WCPFC) Northern Committee (NC) was held September 7-10, 2010, in Fukuoka, Japan. The NC meeting was preceded by a one-day workshop on biological reference points. Council staff has summarized key results of these meetings below.

Workshop on Biological Reference Points

Canada presented a paper, *Developing a fishery management regime for stocks managed by the Northern Committee* (WCPFC-NC6-DP-02).[1] The paper presents a management framework similar to what is found in Council fishery management plans, although in more generalized form.

As background to the discussion the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) provided a paper compiling ISC Working Group descriptions of candidate reference points for northern stocks (WCPFC-NC6-WP-09).

Broadly speaking, there was a difference of opinion between the U.S. and Japan on what types of reference points are appropriate. The U.S. position was that reference points should be related to maximum sustainable yield (MSY), at least for fishing mortality (F) based reference points. The U.S. argued that MSY-based reference points are consistent with both the U.N. Fish Stocks Agreement (UNIA)[2] and the WCPF Convention, Article 6. Japan generally favored reference points based on past observed stock conditions, such as minimum observed biomass (B_{loss}) and the associated fishing mortality rate (F_{loss}). Throughout there also seemed to be some confusion on how limit reference points (LRPs) function, in terms of a management response. The NC Chair asserted that all fishing must cease if an LRP is exceeded while the U.S. argued that a variety of responses are possible and ideally any response is established in advance (i.e., a "control rule").

For North Pacific albacore tuna, discussion focused on the current interim reference point, the fishing mortality rate that prevents the spawning stock biomass (SSB) from declining below the average of the 10 lowest values for the spawning stock biomass ($F_{SSB\text{-}AHTL}$). The U.S. recommended that this be replaced with a comparable reference point related to spawning stock biomass, e.g., $F_{\%SPR}$ as a proxy for F_{MSY}. The U.S. pointed out that such a reference point is more statistically robust, related to MSY, and less dependent on subjective decisions, as is the case with determining the value of the interim reference point (e.g., the length of the projection period). In contrast, Japan argued for a less precautionary interpretation of the interim reference point. The value of $F_{SSB\text{-}AHTL}$ is derived from simulation framework using a 25-year projection

[1] Meeting materials are available at http://www.wcpfc.int/meetings/2010/6th-regular-session-northern-committee.
[2] The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (in force as from 11 December 2001)

period. Japan argued that the projection period should be reduced to 10 years. Workshop participants agreed that the Canadian management regime proposal should be used for North Pacific albacore, but no specifics needed to operationalize such a framework were discussed.

A similar difference of opinion occurred with respect to Pacific bluefin tuna. Japanese scientists favored reference points such as F_{med} and F_{loss}, which are relatively insensitive to estimates of natural mortality (M). They argued that such insensitivity to estimates of other parameters would result in a framework that avoids management responses disruptive to fisheries. In addition they presented time series data indicating that recruitment was not adversely affected by periods when SSB was low. Here again the U.S. favored MSY related reference points and also did not consider sensitivity to estimates of M, which can reflect changing understanding of stock productivity, necessarily a bad thing.

North Pacific swordfish seemed the least problematic candidate for the adoption of reference points, both because the last stock assessment results can be compared to MSY-based reference points and the stock is in good shape (i.e., $B_{2006}/B_{MSY} \approx 1.3$ and $F_{2006}/F_{MSY} \approx 0.69$), meaning that a management response would not be triggered in the near future. However, in subsequent discussions during the NC meeting no reference points were adopted for this stock.

Pacific Bluefin Tuna

The NC adopted a conservation and management measure (CMM) (attached) to replace CMM 2009-07, which expires at the end of this year. The NC recommendation will be considered by the Plenary in December. Much of the discussion revolved around Japan putting pressure on Korea to accede to a withdrawal of the exemption for fisheries in the Korean EEZ that is in CMM 2009-07. Surprisingly, Korea agreed to remove the exemption, perhaps because their head of delegation is new and relatively inexperienced. After this concession, Korea placed a reservation on the proposed CMM, indicating that further discussion will likely occur on the margins of the December Plenary meeting. Korea also essentially admitted that their coastal purse seine fleet is effectively targeting bluefin, rather than it being bycatch in mackerel sets. This is a departure from their previous position and implies that these bluefin catches could be effectively limited. On the other hand, Japan successfully retained the exemption for their "artisanal" fisheries that catch bluefin. Japan argued that they are implementing measures to allow effective monitoring and management of this fishery, suggesting that the exemption would not carry on beyond the life of the proposed CMM, which is for 2011 and 2012 (the next Pacific bluefin stock assessment is due in 2012). It should be noted that catches in Japan's artisanal fisheries are probably not insignificant, possibly comparable, for example, with Mexico's catch.

Per the discussion above on the reference points workshop, no progress was made on adopting reference points for Pacific bluefin. The U.S. was willing to accept B_{loss} as a biomass-based reference point (comparable to the minimum stock size threshold, MSST, under National Standard 1 Guidelines), but only in combination with an MSY-based fishing mortality based reference point, such as one from the $F_{\%SPR}$ family of reference points. In the absence of agreed upon reference points the U.S. recommended that future ISC stock assessments include MSY-based results.

North Pacific Albacore Tuna

The NC did not adopt a conservation measure to replace CMM 2005-03, as had been proposed last year (but not adopted at the Plenary). The U.S. argued that it is better to wait until NC7 in 2011 to develop a replacement CMM, because the results of the next North Pacific albacore stock assessment will be available by that time.

Japan proposed $F_{SSB\text{-}ATHL}$ with a 10-year projection period as a "precautionary" reference point and B_{loss} as an LRP. The U.S. did not agree to Japan's proposed change in the interim reference point (shortening the projection period) and so it remains unchanged.

The NC confirmed that it will continue to use "the interim management objective for North Pacific albacore," agreed upon at NC4 (Attachment J to the NC4 Report), with the following changes to establish a clear time line for management actions:

1. The interim management objective for North Pacific albacore is to maintain spawning stock biomass above the average level of its 10 historically[1] lowest points ("the Level"). The fishing mortality rate that would likely[2] cause SSB to fall below the Level is referred to as the "interim reference point" (IRP).
2. In the event that the ISC finds that the current F exceeds the IRP, the NC shall, at its next meeting, formulate conservation and management recommendations that are designed to reduce F below the IRP within 1 year of the adoption of measures. In formulating such measures the committee shall consider relevant socioeconomic factors and any relevant information from the ISC, including its latest conservation advice.
3. The interim management objective and IRP will be reviewed every 3 years to develop more permanent objectives and reference points that fulfill the provisions of the Convention, in particular Article 6.
4. Achievement of the interim management objective will not preclude the NC from formulating and recommending conservation and management measures that would achieve additional objectives, particularly those stipulated in the Convention or otherwise adopted by the Commission.

[1] Here, "historically" means the time series of annual SSB levels from 1996 through 2005, as estimated in the latest formal stock assessment of the ISC.
[2] Here, "likely" means greater than 50 percent probability.

Other Matters

Gerard DiNardo (NMFS Pacific Islands Fisheries Science Center) reported on the activities of the Northern Committee Striped Marlin Working Group (not to be confused with the ISC's working groups). The U.S. and others have conducted gear-related research on methods to reduce striped marlin bycatch in longline fisheries. However, Dr. DiNardo felt that the Working Group had insufficient financial and technical support; in addition, Dr. DiNardo announced he is resigning as Working Group Chair because he is the incoming Chair of the ISC. For these reasons the NC agreed to abolish the working group but also that the NC should continue to work on striped marlin (although it is not formally a "Northern Stock"). There was discussion of preparing a CMM at NC7, but the U.S. noted that a proposed CMM may emerge from the

upcoming Technical and Compliance Committee (TCC) meeting, for consideration at the Plenary.

Japan submitted a proposed CMM, *Japanese Proposal on Implementation of the ROP [Regional Observer Program] by Vessels Fishing for Fresh Fish in the Area North of 20 Degrees North*. The measure appears principally aimed at Chinese Taipei's (Taiwan's) large fleet of small longline vessels. Chinese Taipei argued for exemptions in various forms (crew size, vessel size) from an observer coverage target of at least 5 percent. However, the draft CMM in its final, agreed to form states only that a "CCM may submit [a] request to the NC7 for exemptions from … [at least 5 percent coverage of the effort of each fishery] … with reasons and data collection programs equivalent to the ROP."

The NC work program includes the idea of some form of independent peer review of the North Pacific albacore stock assessment, and ISC stock assessments generally. It appeared that Japan and other delegations are generally unfamiliar with the cost and requirements for peer review. The U.S. outlined the potential high cost of a Committee of Independent Experts type review and suggested alternatives that might be less costly while preserving the independence of the review.

Notable objectives for next year's meeting (NC7) include:

- Obtain and review full assessment for North Pacific albacore and consider appropriate management action
- Consider and set up interim management objective and reference points for Pacific bluefin tuna, based on ISC advice
- Obtain and review full assessment for striped marlin and consider appropriate management action
- Encourage voluntary contribution for NC's list of priority scientific projects (note that an account to hold such voluntary contributions, managed by the Secretariat, was authorized at WCPFC6)
- Review scientific advice from the ISC, if any, and consider management options for blue shark and mako sharks (note that ISC10 abolished the Bycatch Working Group and replaced it with a Shark Working Group, with a preliminary objective of conducting stock assessments for these shark species)

PFMC
09/13/10

NORTHERN COMMITTEE
SIXTH REGULAR SESSION
7-10 September 2010
Fukuoka, Japan

DRAFT CONSERVATION AND MANAGEMENT MEASURE FOR PACIFIC BLUEFIN TUNA

WCPFC/NC6/XX
XX[th] September 2010

The Western and Central Pacific Fisheries Commission (WCPFC),

Recognizing that WCPFC6 adopted Conservation and Management Measure for Pacific bluefin tuna (CMM2009-07);

Recalling that the WCPFC6 requested the Northern Committee to develop a new draft CMM applying to the Korean EEZ for consideration at the WCPFC7;

Taking account of the conservation advice from the 10th meeting of the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) on this stock, which highlighted the importance that the level of F is decreased below the 2002-2004 levels, particularly on juvenile age classes;

Also recognizing that the trend of spawning stock biomass has been influenced substantially by the annual level of recruitment and that collecting of fisheries data in an accurate and timely manner is critically important for the proper management of this stock, and;

Further recalling that paragraph (4), Article 22 of the WCPFC Convention which requires cooperation between the Commission and the IATTC to reach agreement to harmonize CMMs for fish stocks such as Pacific bluefin tuna that occur in the Convention Areas of both organizations;

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

1. The interim management objective for Pacific bluefin tuna is to ensure that the current level of fishing mortality rate is not increased in the Convention Area. Initially, control over fishing effort will be used to achieve this objective as follows:

2. The Commission Members, Cooperating Non-Members and participating Territories (hereinafter referred to as CCMs) shall take measures necessary to ensure that total fishing effort by their vessels fishing for Pacific bluefin tuna in the area north of the 20 degrees north shall stay below the 2002-2004 levels for 2011 and 2012, except for artisanal fisheries. Such measures shall include those to reduce catches of juveniles (age 0-3) below the 2002-2004 levels.

3. CCMs shall also take measures necessary to strengthen data collecting system for Pacific bluefin tuna fisheries in order to improve the data quality and timeliness of all the data reporting;

4. CCMs shall report to Executive Director by 31 July 2011 and 2012 measures they used to implement paragraphs 2, 3, 6 and 7 of this CMM. The Northern Committee shall annually review reports CCMs submit pursuant to this paragraph;

5. The Northern Committee at its Regular session in 2012 shall review this CMM based on the new ISC stock assessment for Pacific bluefin tuna scheduled in 2012 and take appropriate actions;

6. The WCPFC Executive Director shall communicate this Conservation Management Measure to the IATTC Secretariat and its contracting parties whose fishing vessels engage in fishing for Pacific bluefin tuna and request them to take equivalent measures in conformity with paragraphs 2 and 3 above;

7. To enhance effectiveness of this measure, CCMs are encouraged to communicate with and, if appropriate, work with the concerned IATTC contracting parties bilaterally.

8. 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 Pacific bluefin tuna is limited, but that have a real interest in fishing for the species, that may wish to develop their own fisheries for Pacific bluefin tuna in the future.

9. The provisions of paragraph 8 shall not provide a basis for an increase in fishing effort by fishing vessels owned or operated by interests outside such developing coastal State, particularly Small Island developing State Members or participating territories, unless such fishing is conducted in support of efforts by such Members and territories to develop their own domestic fisheries.

INTER-AMERICAN TROPICAL TUNA COMMISSION

81ST MEETING

ANTIGUA, GUATEMALA
27 SEPTEMBER-1 OCTOBER 2010

DOCUMENT IATTC-81-06b

CONSERVATION RECOMMENDATIONS

The staff recommends the following measures for the conservation of tunas in the IATTC Convention Area:

1. YELLOWFIN AND BIGEYE TUNAS:

a. This recommendation is applicable in the years 2011-2013 to all purse-seine vessels of IATTC capacity classes 4 to 6 (more than 182 metric tons carrying capacity), and to all longline vessels that fish for or catch yellowfin, bigeye, and skipjack tunas in the Convention Area.

b. Pole-and-line, troll, and sportfishing vessels, and purse-seine vessels of IATTC capacity classes 1-3 (less than 182 metric tons carrying capacity) are not subject to this recommendation.

1.1. Purse-seine vessels

a. All purse-seine vessels covered by this recommendation must stop fishing in the Convention Area for a period of 62 days in each of the years 2011-2013. These closures shall be effected in one of two periods in each year: 29 July to 28 September, or 18 November to 18 January of the following year.

For 2012 and 2013, the results of the conservation measures and the status of the bigeye and yellowfin stocks shall be evaluated, and the duration of the closures for those years may be adjusted.

b. Notwithstanding the provisions requiring closures of the fisheries, purse-seine vessels of IATTC capacity class 4 (between 182 and 272 metric tons carrying capacity) will be able to make only one single fishing trip of up to 30 days' duration during the specified closure periods, provided that any such vessel carries an observer of the IATTC Observer Program.

c. For each of the years 2011-2013, the fishery for yellowfin, bigeye, and skipjack tunas by purse-seine vessels within the area of 96º and 110ºW and between 4°N and 3°S illustrated in Figure 1 be closed from 0000 hours on 29 September to 2400 hours on 29 October.

d. In each one of the years covered by this recommendation, and for each one of the two closure periods, each member of the IATTC shall notify the Director, by 15 April, of the names of all the vessels that will observe each closure period. As soon as practicable after this date, the Director shall publish on the Commission website the names of the vessels and the closure period applicable to each vessel for that year.

Each vessel that fishes during 2011-2013, regardless of the flag under which it operates or whether it changes flag or the jurisdiction under which it operates during the year, must observe the closure period to which it was committed for that year. Any vessel that is added to the Regional Vessel Register during the course of a given year must observe one of the two closures during that year.

e. Each member shall:

i. Before the date of entry into force of the closure, take the legal and administrative measures necessary to implement the closure;

ii. Inform all interested parties in its national tuna industry of the closure;

iii. Inform the Director that these steps have been taken;

iv. Ensure that at the time a closure period begins, and for the entire duration of that period, all the purse-seine vessels fishing for yellowfin, bigeye, or skipjack tunas that are committed to observing that closure period and that fly its flag, or operate under its jurisdiction, in the Convention Area are in port, except that vessels carrying an observer from the IATTC Observer Program may remain at sea, provided they do not fish in the Convention Area. The only other exception to this provision shall be that vessels carrying an observer from the IATTC Observer Program may leave port during the closure, provided they do not fish in the Convention Area.

1.2. Longline vessels:

a. Each member shall take the measures necessary to control the total annual catch of bigeye tuna in the Convention Area during each of the years 2011-2013 by longline tuna vessels fishing under its jurisdiction.

b. China, Japan, Korea, and Chinese Taipei shall take the measures necessary to ensure that their total annual longline catches of bigeye tuna in the Convention Area during 2011-2013 do not exceed the following levels:

Metric tons	
China	2,507
Japan	32,372
Korea	11,947
Chinese Taipei	7,555

For 2012 and 2013, the above limits on longline catches may be adjusted based on any adjustments to the conservation measures for purse-seine vessels adopted for those years. Other members shall take the measures necessary to ensure that their total annual longline catches of bigeye tuna in the Convention Area during 2011-2013 do not exceed the greater of 500 metric tons or their respective catches of bigeye tuna in 2001.

Members whose annual catches of bigeye have exceeded 500 metric tons during any of the years 2006-2010 shall provide monthly catch reports to the Director.

2. PACIFIC BLUEFIN TUNA:

Each member with flag vessels that catch Pacific bluefin tuna shall take the measures necessary to:

a. Control the fishing mortality of Pacific bluefin tuna by commercial tuna vessels fishing under its jurisdiction during each of the years 2011-2012 to ensure that the annual catches in the Convention Area by the commercial vessels under its jurisdiction do not exceed the average annual level of such catches during 1994-2007.

Each member shall take the measures necessary to control the fishing mortality of Pacific bluefin tuna and inform the Director of any such measures.

b. Ensure that the total annual effort in the Convention Area for Pacific bluefin tuna by sportfishing vessels under its jurisdiction does not exceed the maximum annual level of such fishing effort during 2006-2010.

All members shall provide monthly reports of sportfishing catches and fishing effort to the Director.

3. NORTHERN ALBACORE TUNA:

a. As discussed during the 80th meeting of the IATTC, form an *ad hoc* working group to develop an operational definition of the "current levels" of effort specified in paragraph 1 of Resolution C-05-02;

b. Amend Resolution C-05-02 to require that the required six-monthly reports include information on effort as well as catch;

c. Amend Resolution C-05-02 to clarify that data provided should be for the Convention Area only.

4. FULL RETENTION OF TUNA CAUGHT BY PURSE SEINES

Renew, for each of the years 2011-2013, the program to require all purse-seine vessels to first retain on board and then land all bigeye, skipjack, and yellowfin tuna caught, except fish considered unfit for human consumption for reasons other than size. A single exception shall be the final set of a trip, when there may be insufficient well space remaining to accommodate all the tuna caught in that set.

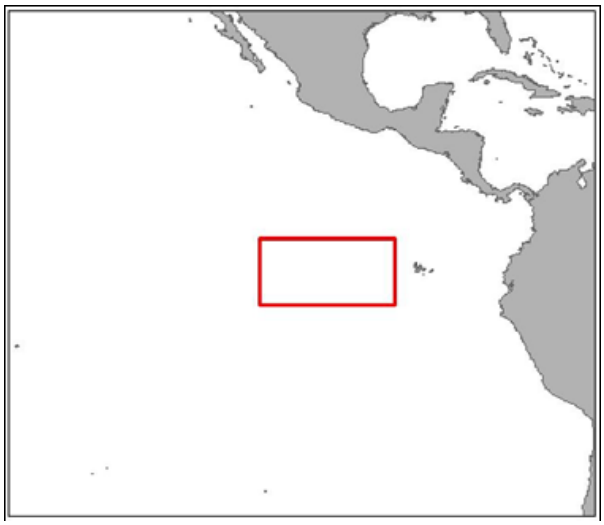


Figure 1. Closure area

HIGHLY MIGRATORY SPECIES ADVISORY SUBPANEL REPORT ON RECOMMENDATIONS TO INTERNATIONAL FISHERY MANAGEMENT ORGANIZATIONS

Concerning the Inter-American Tropical Tuna Commission (IATTC) workshop on defining "current levels" of effort in the IATTC C-05-02 Resolution that deals with international harvest of North Pacific albacore tuna, the Highly Migratory Species Advisory Subpanel (HMSAS) recommends forwarding the following recommendations to the U.S. Delegation:

- The U.S. should participate in the workshop.
- The U.S. should evaluate the best base periods for the U.S. fishing fleet to achieve the maximum percentage of harvest when compared to other nations that harvest North Pacific albacore.
- The U.S. should not propose or endorse any changes to international management of North Pacific albacore until the 2010 stock assessment of North Pacific albacore is completed in 2011.

Concerning the annual IATTC meeting, the HMSAS reviewed the Conservation Recommendations from the IATTC Staff and request that the following recommendations are forwarded to the U.S. delegation, listed below by species.

Yellowfin, Bigeye, and Skipjack Tunas

The HMSAS concurs with the IATTC staff recommendations.

Bluefin Tuna

The HMSAS recommends that the preferred option would be for a request that the fisheries other than purse-seine be exempt. If this option fails, then a second option would be to combine all of the bluefin catch (to include recreational and commercial) together by year for the U.S. fleet and achieve the best base period for a limit for 2011-2012 fishing years.

Albacore Tuna

The HMSAS does not foresee any albacore management issues addressed this year at the IATTC session with the pending 2011 stock assessment. However, the HMSAS would like to have the Council remind National Marine Fisheries Service of the need for funds to support research on the status of North Pacific albacore. The HMSAS also suggests that the Council remind the U.S. delegation of the need for comprehensive and timely data reporting by other nations harvesting North Pacific albacore.

Striped Marlin

The IATTC staff did not provide any recommendations on striped marlin and the HMSAS has not been provided any reports on the status of striped marlin. Current International Scientific

Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) management advice for striped marlin is to not increase effort and the Council 2009 SAFE report indicates no increase in the take of striped marlin by U.S. west coast fishermen.

Therefore, the HMSAS reiterates its recommendations related to advice to delegations on striped marlin provided in previous statements on the topic and have no information that would support the adoption of conservation and management measures for Pacific striped marlin that entail additional effort reductions to U.S. west coast fishermen.

PFMC
09/16/10

HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT ON RECOMMENDATIONS TO INTERNATIONAL FISHERY MANAGEMENT ORGANIZATIONS

The Highly Migratory Species Management Team (HMSMT) discussed recommendations that the Council might consider making to the U.S. delegation to the Inter-American Tropical Tuna Commission (IATTC). The HMSMT reviewed the IATTC and International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC) stock assessments that have been completed since the June 2010 Council meeting as well as the conservation recommendations that were presented by the IATTC Secretariat at the 1st Meeting of the IATTC Scientific Advisory Committee meeting on September 2-3, 2010 (Agenda Item K.3.a, Supplemental Attachment 5).

Bigeye and Yellowfin Tunas

The HMSMT recommends that the Council support the bigeye and yellowfin tuna conservation measures that were recommended by the IATTC Secretariat for the years 2011-2013. The recommendations include continuing the 2010 measures included in IATTC Resolution C-09-01. These measures include a 62-day purse seine closure in the IATTC Convention Area, a 30-day purse seine closure of the high seas area to the west of the Galapagos Islands, and bigeye tuna catch limits in the longline fisheries operating in the IATTC Convention Area. The results of the IATTC bigeye tuna stock assessment indicate that the eastern Pacific Ocean (EPO) stock of bigeye tuna has improved since the last assessment and is no longer subject to overfishing or in an overfished condition according to the IATTC. The results of the IATTC yellowfin tuna stock assessment indicate that the EPO stock of yellowfin tuna is also not subject to overfishing or in an overfished condition according to the IATTC. Both assessments indicate that the measures in place during 2010 could be relaxed in terms of reducing the length of the purse seine closures or increasing the catch limits in the purse seine fishery; however, sensitivity analyses conducted as part of the stock assessments indicate that there is some uncertainty over the results of the stock assessments. The HMSMT, therefore, believes that retaining the 2010 measures, which are more precautionary, is warranted.

Pacific Bluefin Tuna

The HMSMT recommends that the Council support the IATTC Secretariat's recommendation that annual catches of Pacific bluefin tuna by commercial tuna vessels not exceed the average annual level of catches during 1994-2007. The HMSMT does not recommend the Council support the IATTC Secretariat's recommendation that annual fishing effort for Pacific bluefin tuna by sportfishing vessels not exceed the maximum annual level of fishing effort during 2006-2010.

Based on the results of the ISC Pacific bluefin tuna stock assessment, which indicates that the stock is subject to overfishing based on all commonly used reference points, the HMSMT believes that a reduction in fishing mortality of Pacific bluefin tuna is necessary. However, the U.S. catch of Pacific bluefin tuna is relatively insignificant in comparison to the total catch by all nations. The average U.S. catch of Pacific bluefin tuna in the EPO, including both commercial and recreational catch for the years 2004-2008, is less than one percent of the average stockwide

catch of Pacific bluefin in the North Pacific Ocean. For the same time period, the U.S. recreational fishery accounts for slightly less than half of the total U.S. catch.

The Council may want to consider either supporting the exemption of the recreational fishery from the management measures, or including the recreational fishery in the proposed commercial measure. The advantage of combining the commercial and recreational fisheries in a single measure is that it would limit annual catches and would make the baseline years more consistent.

North Pacific Albacore

In regard to North Pacific albacore and the formation of an *ad hoc* working group to develop an operational definition of the "current levels" of effort specified in IATTC Resolution C-05-02, the HMSMT recommends that the Council support U.S. participation in the working group. Rather than focus on the definition of "current effort," the working group should focus on establishing a management framework for albacore in anticipation of the 2011 North Pacific albacore ISC stock assessment. This approach would be consistent with what the U.S. delegation supported at the WCPFC Northern Committee meetings. The Council also may want to recommend that the U.S. delegation work to ensure that there is an opportunity for the Council to have input on such a management framework.

Full Retention of Tuna Caught by Purse Seines

The HMSMT considers the IATTC Secretariat's recommendation to renew the tuna retention requirement in the purse seine fishery a good conservation measure if uniformly implemented and enforced by all members of the IATTC.

In summary the HMSMT recommends the Council:

- Support the IATTC Secretariat's recommendations for bigeye and yellowfin tuna management measures;

- Support the IATTC Secretariat's recommendations for Pacific bluefin tuna management measures that would apply to the commercial fishery;

- Either exempt the recreational fishery from the Pacific bluefin tuna management measures recommended by the IATTC Secretariat, or include the recreational fishery in the IATTC Secretariat's proposed commercial Pacific bluefin tuna measures;

- Support U.S. participation in the IATTC's albacore working group; however, rather than focusing on the definition of "current effort," the working group should focus on establishing a management framework for albacore in anticipation of the 2011 North Pacific albacore ISC stock assessment; and

- Support renewal of the tuna retention requirement in the purse seine fishery only if uniformly implemented and enforced by all Parties to the IATTC.

Table 1. Upcoming International HMS Meetings

Date	Meeting	Location
Sept. 17, 2010	General Advisory Committee to U.S. delegation to the IATTC meeting	La Jolla, CA
Sept. 23-Oct. 1, 2010	IATTC and AIDCP annual meetings	Antigua, Guatemala
Sept. 30-Oct. 5, 2010	WCPFC Technical and Compliance Committee	Pohnpei, Micronesia
December 6-11, 2010	WCPFC annual meeting	Honolulu, HI
March 2011	ISC albacore stock assessment	Shimizu, Japan
July 2011	ISC Plenary meeting	To be decided
May 2012	ISC bluefin tuna stock assessment	To be decided

PFMC
09/16/10