WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

Report of the 104th Meeting of the Scientific and Statistical Committee

June 22-24, 2010
New Otani Hotel
Honolulu, Hawaii

5. Program Planning

A. ACLs Process (Action)

As background for addressing the draft amendment incorporating new harvest controls into the Council's FEPs, Council Staff described changes in the reauthorization of the MSA and the NMFS revised National Standard 1 Guidelines. The new Guidelines call for the setting of harvest controls for each stock or stock complex managed by the Council. The description below has been expanded from that presented to provide more background information and show the relationship between the control rules.

- Overfishing limit (OFL) (SSC)
  - The expected value of maximum sustainable yield (MSY) in the year for which harvest controls are set
  - A biological limit in fisheries management language
  - Set by the SSC
- Acceptable biological catch (ABC) (SSC)
  - A buffer separates OFL and ABC to account for the uncertainty in forecasting OFL
  - A biological target in fisheries management language
  - Set by the SSC
- Annual catch limit (ACL) (Council)
  - A buffer separates ABC and ACL to account for any additional scientific uncertainty and Council consideration of the sociological and economic impacts of overfishing the stock, both in the judgment of the Council
  - This is regarded as the optimum yield (OY) in the year for which harvest controls are set
  - A management limit in fisheries management language
  - Set by the Council
- Annual catch target (ACT) (Council and optional)
  - A buffer separates ACL from ACT to account for management uncertainty
  - A management target in fisheries management language and also an accountability measure (AM) under the new guidelines
  - Optional in that Councils may incorporate this buffer between ABC and ACL and not use ACT
- ACT must not exceed the ACL, the ACL must not exceed the ABC and the ABC must not exceed the OFL
  - OFL $\geq$ ABC $\geq$ ACL $\geq$ ACT

Staff noted for stocks found to be "in the fishery" that Council FEPs must contain estimates for a number of reference points and harvest controls. Carried over from the previous version of the MSA and Guidelines are maximum sustainable yield (MSY), status determination criteria (SDC; i.e. minimum stock size threshold (MSST) and maximum fishing mortality threshold (MFMT)), and optimum yield (OY). The new Guideline requirements include ABC and its control rule or mechanism, ACL and its control rule, and Accountability Measures to prevent catch from exceeding ACL, all of which are intended to prevent overfishing from occurring.

Thus, the first step in this new process is to decide which stocks and stock complexes in each FEP are "in the fishery" and which are not. Stocks that are not targeted, not subject to overfishing, not likely to become subject to overfishing, and not generally retained for sale or personal use may be designated as ecosystem components and thus are no longer "in the fishery." Alternatively, such stocks could be removed from FEPs. Staff presented the following alternatives for addressing this issue.

Alternative 1: No action
Alternative 2: Utilize the Ecosystem Component Designation
Alternative 3: Remove stocks from Council FEPs

The SSC selected Alternative 2 as its preferred alternative because it provides for continued monitoring and detection of changes that might occur in the role of a stock or stock complex in the fishery. With nearly 800 species taken in Council managed fisheries, taking no action was clearly not a reasonable choice. The SSC did not support alternative 3 because the removal of stocks from FEPs would remove any incentive to monitor for any potential changes in the contribution of a stock to Council managed fisheries.

The SSC supported several criteria to determine which species should be designated "in the fishery" or as Ecosystem Component stocks based on spatial, temporal, and/or catch information.

Staff presented the details of alternative mechanisms for the SSC to set the acceptable biological catch (ABC).

Alternative 1: No action
Alternative 2: Tiered system of ABC control rules

a. Probabilistic approach
    a. Good catch data
    b. Life history information good
    c. Integrated stock assessment modeling, including uncertainty
b. Quasi-probabilistic approach
    a. Catch data possibly of somewhat less quality
    b. Life history information may be somewhat limited
    c. Stock assessments consist of separate, nonintegrated models, with uncertainty estimated using re-sampling procedures
c. Data-poor approaches
    a. Reliable catch history data and basic life history information—average catch augmented, with stock reduction analysis possible

b. Reliable catch history and some estimate of natural mortality—average catch analysis possible
c. Examples include HI small boat commercial fisheries such as akule and opelu

d. Data-nearly-lacking approach
   a. Short, unreliable catch history data
   b. Catch data completely lacking for some species
   c. The situation for many coral reef species, particularly in Guam, CNMI, and AS
   d. Potential utilization of yield per km of habitat approach

The SSC chose Alternative 2 as its preferred alternative, i.e. a four-tier system for the SSC to set ABC as the best means for incorporating science into the decision process and dealing with different levels of data quality and stock assessment information.

Staff described potential alternatives for setting of ACLs by the Council and how the SSC could support the Council in doing so. Two mechanisms for developing a buffer between ABC and ACL were put forward, one using a fixed percentage and another using a probabilistic approach.

Associated with this, Staff discussed two alternative approaches put forward at the 2nd National SSC meeting that the Council could use in determining the probability level of overfishing that they would accept for setting ABC (and ACL). The Council could adopt the approach of the Mid-Atlantic Fishery Management Council and their SSC. This consists of a graphic with the probability of overfishing on the vertical axis and B/B_{MSY} on the horizontal axis and curves for stock assessments grouped into ideal, preferred and acceptable categories as shown in Figure 1

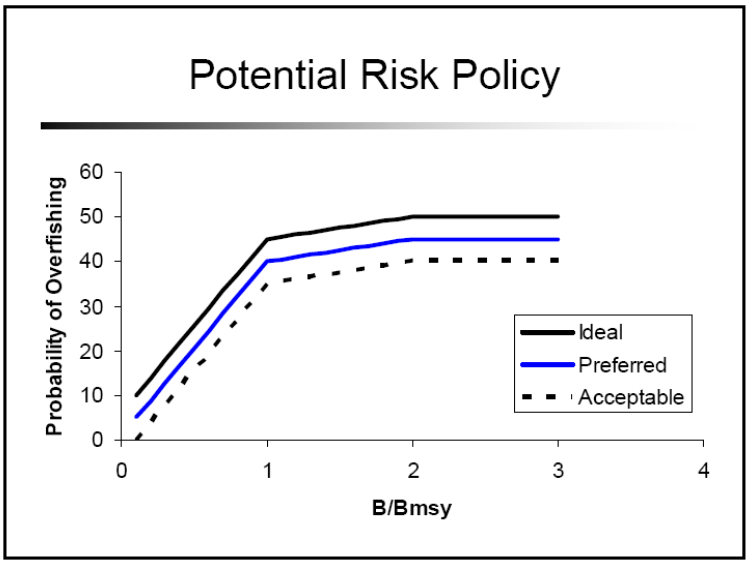

Figure 1. Example from the Mid-Atlantic Council for selection of a probability of overfishing for an Acceptable Biological Catch (ABC), with different categories of stock assessment. Such an approach can also be adapted for setting Annual Catch Limits from an ABC.

Tiers Within Dimensions

Assessment Information

Tier Description	Penalty
Quantitative assessment provides estimates of exploitation and biomass; includes MSY-derived benchmarks.	0.0
Reliable measures of exploitation or biomass, no MSY benchmarks, proxy reference points	2.5
Relative measures of exploitation or biomass, absolute measures of status unavailable, proxy reference points	5.0
Reliable catch history	7.5
Scarce or unreliable catch records	10.0

Tiers Within Dimensions

Uncertainty Characterization

Tier Description	Penalty
Complete. Key determinant – uncertainty in both assessment inputs and environmental conditions are included	0.0
High. Key determinant – reflects more than just uncertainty in future recruitment	2.5
Medium. Uncertainties are addressed via statistical techniques and sensitivities, but full uncertainty is not carried forward in projections	5.0
Low. Distributions of Fmsy and MSY are lacking	7.5
None. Only single point estimates; no sensitivities or uncertainty evaluations	10.0

Tiers Within Dimensions

Stock Status

Tier Description	Penalty
Neither overfished nor overfishing. Stock is at high biomass and low exploitation relative to benchmark values.	0.0
Neither overfished nor overfishing. Stock may be in close proximity to benchmark values.	2.5
Stock is either overfished or overfishing.	5.0
Stock is both overfished and overfishing.	7.5
Either status criterion is unknown.	10.0

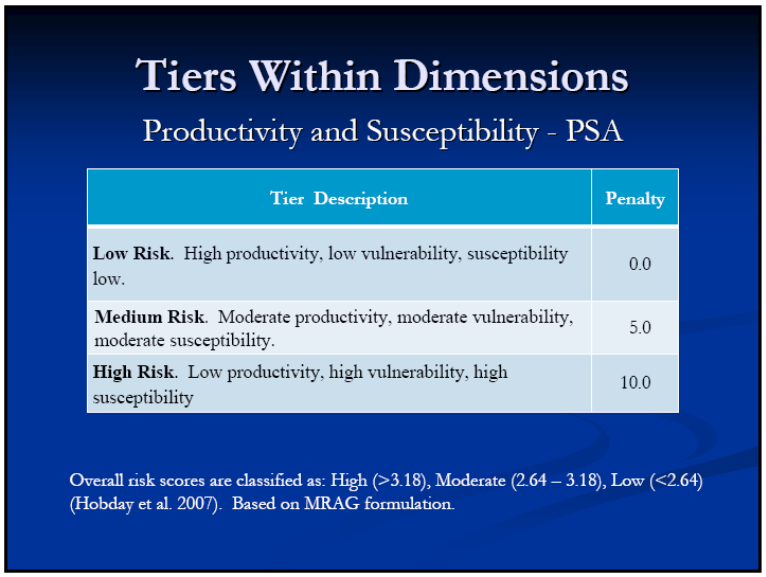

Figure 2. Four-tier system used by the South Atlantic Fishery Management Council selection of a probability of overfishing for an Acceptable Biological Catch (ABC), with different categories of stock assessment. Such an approach can also be adapted for setting Annual Catch Limits from an ABC.

Alternatively the Council could adopt a qualitative scoring construct similar to that adopted by the South Atlantic Council (Figure 2)

Rather than selecting any of these alternatives, the SSC recommended the formation of a working group for further development of alternative methods for setting ACLs and for the selection of acceptable probabilities (P*s) of exceeding OFL used in the setting of ABCs and ACLs. The SSC noted that the P*s should be specific for a given stock or stock complex and would need to be set for each management year.

Lastly, Staff presented the following alternatives for setting of accountability measures (AMs).

Alternative 1: No action
Alternative 2: Suite of accountability measures

a. Near real time catch monitoring
b. Closure of fishery once ACL/ACT is met
c. Multi year catch limit
d. Evaluation of catch monitoring improvements
e. Setting ACT below ACL

The SSC selected Alternative 2 as its preferred alternative. The SSC believes that no single measure would cover all circumstances and that a suite of measures is likely to be more effective.

B. Management Measures for Aquaculture in the Western Pacific (Action)

Council staff presented the following alternatives.

Alternative 1. No action
   a. Continue to manage by Council's aquaculture policy, pending establishment of a National Aquaculture Policy
Alternative 2. Permitting and reporting (Council preferred alternative)
Alternative 3. Aquaculture zones
   a. Designate areas where aquaculture would be allowed
   b. Can be used to solve social conflicts and fishery interactions
   c. Utilize marine spatial planning initiative
Alternative 4. Council review process (Council preferred alternative)
   a. Establish the council as a review body for approving permits
   b. Provides the Council with an opportunity for consultation
   c. Provides communities with additional public comments on operation
Alternative 5. Limited entry (Council preferred alternative)
   a. Allows only a number of a particular number of operations
   b. May need to establish a control date
Alternative 6. Prohibit aquaculture in the WPR
   a. Disallows aquaculture in the WPR

Issues that came up in the discussion included difficulty in obtaining data on the source of stock, the un-tethered pens serving as fish aggregating devices (FADs), unclear need for managing a fishery via limited entry that is in the very early stages of development, monitoring of ecosystem impacts of nutrient leakage and fish diseases, responsibility for reporting catches of vessels supplying stock for aquaculture, multiple federal and state/territory permit requirements, basis for Council review of an application, and sociological and economic impacts on local fishermen.

The SSC recommends adopting alternative 2 to require permitting and reporting via federal logbook to monitor the aquaculture fishery. Concerns were raised in prematurely developing a limited entry program because there is not enough information available on operations in federal waters and because of uncertainty regarding how these fisheries may develop in the future. It is also premature to designate aquaculture zones since it is unclear what will be cultured and what technology will be used.

The SSC also recommends that planning should be added to permitting and reporting in Alternative 2. Doing so would provide the opportunity for the Council and other interested parties to review the proposal and provide comments and guidance as the fishery develops.

C. Cooperative Research Priorities (Action)

Council staff described the goals of the Cooperative Research Program and provided a list of recommended projects for funding by the Advisory Panels. The SSC made the following recommendations with regard to the proposed projects:

American Samoa Archipelago

The SSC supported Project 2 (*A study to determine what the FADs are producing in terms of catches, size structure, and look at stock structure by tagging fish at FADs and exploring the potential for using an alternate improved FAD design*) but suggests that the term "catches" should include both landed fish and discards.

Marianas Archipelago

The SSC supported Project 1 (*An evaluation of the potential market impacts on Guam and CNMI be conducted regarding the emerging longline fishery in the CNMI*) recommends that this project be made a high priority given that the CNMI-based longline fishery is expanding.

Hawaii Archipelago

The SSC supports Project 1 (*Determine the diet of Ta'ape (Lutjanus kasmira) through stomach content studies)* but recommends that the diet study include techniques such as stable isotope and fatty acids analyses, in addition to stomach contents. These techniques are more stable over time and more accurate in determining diet.

The SSC recommends adding as a high priority a new Project 3 that continues tagging of Deep 7 species by experienced fishermen, to provide additional life history data on these species.

Pacific Pelagics

The SSC supported Project 1, suggesting that projects such as bigeye post-hooking mortality be coordinated with the Pelagic Fishery Research Program.

D. Hawaii Longline Video Monitoring Project

The SSC heard with interest the results of trials on the Hawaii longline fishery by Archipelago Marine Research Ltd, a biological consulting firm that provides fisheries and marine biological services to both public and private sector clients.

E. National Habitat & Stock Assessment Workshop

The SSC heard with interest the report by SSC member Marlowe Sabater on the recent NMFS National Habitat and Stock Assessment Workshop, held in St Petersburg, Florida during May, 2010. Apart from the improvements in habitat description, it was noted that there needed to be better communication between the NMFS regional offices and science centers.

F. Status of Stocks Report

NMFS PIRO staff reported on the 2009 Status of Stocks report to Congress. There continues to be an increasing trend in the fish stock sustainability index (FSSI), which measures the performance of the nation's fisheries. A higher score is the result of a decreasing number of fisheries that are overfished or subject to overfishing.

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

Report of the 104th Meeting of the Scientific and Statistical Committee

June 22-24, 2010
New Otani Hotel
Honolulu, Hawaii

6. Insular Fisheries

A. Update on Potential Management Measures for fishing in the Marine National Monuments (Action)

Staff updated the SSC on Council actions at the last meeting and noted some NOAA responses to the proposed measures. He noted federal precedents where limited sales were allowed for cost recovery for subsistence fishing. He noted the potential need to refine the recommendations to support implementation and administration of the proposed regulations and asked the SSC to consider 3 things: refining the definitions of terms, administration and enforcement, and refining the regulations as appropriate. Additional issues raised were permit eligibility and whether "cost recovery" under non-commercial customary exchange needed reporting, monitoring or additional effort constraints. One SSC member asked whether there were other fisheries where post landing monitoring of fish distribution and cost recovery were required and suggested that the people suggesting monitoring were applying a western mindset, and did not understand customary exchange. He noted that forcing people to report and calculate a value of the exchanges violated the cultural principles and values underlying customary exchange, and could begin to change people's behavior. Another member supported the continued use of customary exchange, and a third pointed out that very little fishing activity was anticipated in the Rose Atoll and the Islands Unit, and that there did not appear to be major biological concerns about the condition of fish stocks.

The SSC notes that, given the distances involved and the limited amount of fishing before the Monuments were declared, it is unlikely that there will be significant fishing pressure under any new regulations. The SSC reiterates its support of a general non-commercial fishing definition including sustenance, subsistence, traditional indigenous, and recreational fishing. And the SSC supports development of Council regulations that allow fishing for customary exchange in the Rose Atoll and Marianas Trench Marine National Monuments. Though the SSC is including traditional indigenous fishing within the general category of non-commercial fishing, the SSC does not mean to lessen the importance of traditional indigenous fishing. The SSC supports requiring permits and reporting of numbers and species of fish landed. The SSC does not support post landing monitoring of the particulars of fish distribution and cost reimbursement, because those calculations of equivalencies run counter to the cultural values and benefits of sharing fish. The SSC also does not support permit requirements or processes that would pose unnecessary or inappropriate burdens on fishery participants. The SSC suggests that if the Council were to consider a residency requirement for permits for noncommercial fishing in the monuments, the SSC calls the Council's attention to the fact that many of the indigenous

people affected have family members and relatives who are residents elsewhere but return regularly to participate in cultural and family events.

B. American Samoa Archipelago

1. Am. Samoa AP, PT & REAC reports

The SSC has no objection to any of the recommendations from these meetings.

C. Hawaii Archipelago

1. Draft Amendment for Refining Essential Fish Habitat for MHI Bottomfish (Action)

UH researcher Chris Kelley provided an overview of work on Essential Fish Habitat (EFH) and Habitat Areas of Particular concern (HAPC) for Hawaiian Archipelago bottomfish. It was suggested that life stages be split out as egg, larvae, juvenile and adult, for all BMUS. Kelley noted that EFH for eggs should be 0-50 nmi, and not 0-200 nmi as egg incubation periods are only from 30-48 hours. Egg depth distribution should remain at 0-400m. Larvae EFH should be extended to 200 nmi, as new modeling information suggests larvae can reach the EEZ boundary. Juvenile and adult complexes should be increased from 'deep and shallow' to 'shallow, mid, and deep' complexes. The report is expected to be completed by the next SSC meeting. The Draft Amendment for Refining EFH and HAPC for Hawaii Archipelago bottomfish will be completed after Kelley completes his report.

2. TAC for MHI bottomfish (Action)

PIFSC Director Sam Pooley provided a summary of the MHI bottomfish fishery TAC per year and over the 2007-2010 three-year period. It was noted that the fishery was prematurely closed this year before reaching the TAC due to double counting of catches submitted online and on paper. PIFSC and Hawaii DAR have subsequently fixed this problem. The sum of overages in the first 2 years and underage this year was roughly equal to 98% of the combined TACs for the past three fishing years. It was noted by PIRO that if a multi-year TAC is set using the ACL process and the TAC equals the ACL, and the TAC is exceeded twice in a four year period, then the management process must be revisited.

3. Hawaii Archipelagic Plan Team and REAC reports

Council staff provided a table of alternative TACs, with corresponding risks of overfishing. The SSC reiterated its lack of confidence expressed at its 99th meeting in the PIFSC production model used to generate the presented TAC values. **The SSC expressed its disappointment that a new stock assessment was not presented by PIFSC at this meeting and, given the ACL requirements in 2011, requires that an updated stock assessment reflecting the revised geographic extent of the fishery as approved by the Council be presented at the next SSC meeting. Any stock assessment for the 2011-2012 fishing year must be completed and independently reviewed through the agreed upon WPSAR process prior to the June 2011 SCC meeting.**

The SSC recommended that TACs generated using the SSC model introduced at the 99th meeting[1], are preferable to those generated from the PIFSC production model, until the

[1] At the 99th SSC, members of the SSC made some preliminary analyses of the MHI stock complex data as provided by NMFS PIFSC. Results of these analyses were substantially different from those in the bottomfish assessment presented to the SSC. These results indicate the stock is above the MSY level of abundance and that catches based on fishing at the MSY level of mortality are substantially higher than results in the bottomfish assessment document.

PIFSC investigates changing their model assumptions as recommended at the 99th meeting. The SSC therefore recommends a 2010/11 TAC of 244,000 pounds, which represents the 25th percentile of the 25 year long-term running average catch of deep 7 of 329,000 pounds. The SSC notes that this proposed TAC, when compared to the tables presented in the PIFSC stock analysis projections for 2010 represented a 29% risk of overfishing. If the fishery had caught its full 2009/2010 TAC of 254,050 lbs, the 25 year running average 25th percentile would be approximately 245,000 lbs.

The SSC heard with interest the recommendations from the Hawaii Archipelago Plan Team regarding the Main Hawaiian Islands bottomfish, which were as follows:

1) Recommends that the Council consider changing the MHI bottomfish fishery closure notices to include a 7 day delay instead of the 14 day delay which has been used in closing the fishery in previous years.

2) Recommends the Council establish an Advisory Review Board to be consulted prior to selecting the projected closure date of the MHI bottomfish fishery as managed under the annual TAC. The Advisory Review Board should consist of representatives from the bottomfish fishing community throughout the MHI, representatives from the seafood processor and marketing communities and Plan Team members from NMFS and the HDAR. The Advisory Review Board should meet immediately prior to the Bottomfish Principals Group (PIRO Regional Administrator; PIFSC Director; HDAR Administrator; and Council Executive Director) to review available bottomfish landing and sales data, consider recent fishery performance and provide guidance to the Bottomfish Principals on the closure of the fishery.

3) Recommends PIFSC immediately revise "Table 9. Projected TACs, probabilities of overfishing, relative biomasses,.." to include the total landings from the 2009/2010 fishing year for consideration by the SSC and Council. If Table 9 is revised, the TAC associated with a 40% risk level of overfishing may be higher than that currently represented. If Table 9 is not revised, the Team recommends the SSC and Council consider a TAC of 269,000 lbs that corresponds to a risk level of 49%.

4) Requests the Council appoint a NMFS Stock Assessment scientist to the Plan Team as the need for such expertise has grown as the management regime has transitioned to quota based systems.

5) Recommends the Council consider appointing the Hawaii Archipelago Advisory Panel Chair to the Plan Team to provide input on management issues from the fishing community perspective. The AP Chair should have the prerogative to assign an AP member designee to participate on his/her behalf.

The SSC decided to look at a simple alternative method to produce recommended catch levels for 2009. The new standardized catch rates (CPUE) show a different qualitative trend than ones the SSC has been shown in previous meetings. In fact, a linear regression of CPUE versus year from 1982-2007 has a slope not significantly different from zero. The average catch for the MHI complex and the deep 7 complex for that time period was 469,087 and 339,698 lbs, respectively and median catches were 413,348 and 308,526 lbs, respectively and the 25th percentile 348,334 and 254,050 lbs, respectively. Consequently, the SSC recommended a precautionary TAC of 254,050 lbs for the deep 7 complex in the 2008/2009 MHI bottomfish fishing season only.

The SSC supports the June Plan team recommendations 1, 2, 4, and 5). Regarding Recommendation 3 for the Deep 7 TAC for the 2010/11 fishing year, the SSC prefers the TAC calculation explained above.

D. Public Comment

Public Comment was heard from 2 individuals on issues in the MHI Deep 7 Bottomfish fishery: the TAC, federal versus State authority over the BRFAs , trip reporting difficulties and recommendations that the BRFAs should be removed.

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

Report of the 104th Meeting of the Scientific and Statistical Committee

June 22-24, 2010
New Otani Hotel
Honolulu, Hawaii

7. Pelagic Fisheries

A. Hawaii Longline Bigeye Tuna Management Under a Catch Limit (Action)

SSC considered a range of management measures additional to a proposal published by NMFS to limit annual bigeye catch by U.S. longline vessels in the WCPO to 3763 mt. The purpose of the additional measures are to constrain annual catch of bigeye under the limit while minimizing the probability of closures during the Christmas holiday season as well as to assure that annual catches of yellowfin remain below the 770 mt limit.

An analysis was presented by the Council Staff based on catch and effort history in years 2004 to 2008. The following options were considered:

> **No Action** -- Under this approach bigeye tuna catch limits established by the Pacific tuna RFMOs for U.S. longline fleets would be implemented through NMFS rule making.
>
> **Change fishing year** -- Under this approach the fishing year would begin in whatever month would maximize the likelihood of maximizing fishery revenues as well as providing a steady, optimal, or at least workable flow of fish to markets.
>
> **Effort limits** (sets, trips, hooks) -- Under this alternative, the Hawaii deep-set longline fishery would operate under an effort regime which would limit the fishing effort in the WCPO.

The results with respect to the changes in fishing year were complex and variable depending on whether fishermen were assumed to operate in the ETP during closures in the WCPO. **Noting that the analysis has not as yet been presented to the longline fishermen, the SSC felt that any regulatory change to the fishing year should be deferred till the industry has had a chance to consider the results of the analysis and commented on the question.**

Given that a catch limit is already in place the SSC feels that fishing effort limitation is redundant and would create undesirable complication while implementation of a catch shares system is being investigated. Therefore the SSC suggests that an effort limit should not be established at this time.

With regard to the yellowfin catch limit, information presented in document 7A(1) indicates that maintaining an annual bigeye catch limit of 3,763 mt in WCPO by the Hawaii longline fishery will assure that the annual yellowfin catch in the WCPO will very

likely remain below the limit of 771 mt.

Given the above considerations, the SSC recommends the alternative of no action at this time.

B. Options to Modify Hawaii Deep-set Tuna Longline Fishery Swordfish Trip Catch Limit (Action)

Council Staff presented the Draft Regulatory Amendment to the Pelagic Fisheries FEP of the Western Pacific Region. The document describes and analyzes potential environmental and socio-economic impacts of the proposed regulatory modifications for the Hawaii-based deep-set longline fishery targeting tuna. This amendment proposes to modify the trip limit to 25 swordfish per trip for deep-set tuna targeting vessels using circle hooks but retaining the 10 per trip swordfish retention limit for vessels using tuna hooks. Vessels carrying an observer, regardless of the type of hook used would be under no retention limit for swordfish.

North Pacific swordfish stocks are currently not approaching an overfished state nor is overfishing occurring. Current regulations already impose restrictions on deep-set tuna longline fishing, specifying the dimensions and provisions of a deep-set. These restrictions are intended to prevent deep-set longline vessel fishing for BET and YFT from switching to shallow-set gear to target swordfish. Since the set limit for shallow-sets has been removed, the ten swordfish per trip limit on deep-set fishermen is duplicative, burdensome and can lead to regulatory discards of otherwise marketable fish.

The SSC therefore supports the Council's preferred Alternative to modify the current trip limit of 10 swordfish per trip and to allow 25 swordfish per trip for deep-set tuna targeting vessels using circle hooks but retaining the 10 swordfish per trip limit for vessels using tuna hooks. The SSC also supports the Council's preferred alternative that there should be no retention limit for any deep-set vessels carrying an observer, regardless of the type of hook used.

C. American Samoa Longline Limited Entry Program Modifications (Action)

Several alternatives were offered to address issues regarding vessel size classes, minimum landing requirements, and permit eligibility criteria in the American Samoa pelagic longline fishery. The SSC feels that this fishery is too small to have an impact on the southern albacore stock, although some concern was expressed about the possibility of local depletion.
The SSC supports measures which foster the health of the small boat fleet and facilitate continuing Samoan participation in the fishery.

The SSC notes that a temporary lifting of minimum landing requirements would make it easier for local fishermen to recover from the impacts of the 2009 tsunami and remain in the fishery.

D. Territory Fisheries Development

Council staff presented an update on options for US Pacific Islands territory fishery development

E. Transhipment

PIRO staff explained that Amendment 2 to the Pelagics FMP included requirements for U.S.

receiving vessels to maintain logs of transshipment of longline-caught PMUS and that these vessels have permits. In December 2009 the WCPFC adopted CMM 2009-06 which calls for Commission members to require that their fishing vessels also report transshipments of Convention Area-caught HMS that occur inside the Convention Area, whether at sea or in port. NMFS intends to implement the WCPFC reporting requirements for U.S. fishing vessels, regardless of vessel gear type and it is anticipated that a single uniform reporting form will be developed.

PIRO staff presented a list of data fields that are under consideration for removal from the new transshipment reporting form. These fields were the following: general area of catch number of days fished, number of sets, average number of hooks, broker or shipping agent and port of landing. **The SSC recommends that port of landing and broker or shipping agent, be retained in future transshipment reporting requirements.**

F. Hawaii Longline Bigeye Tuna Catch Shares Update

Council staff reported on the progress of collaborative effort by a NMFS PIFSC, NMFS PIRO and the Council Working Group to develop a mechanism for allocating bigeye tuna catch shares for the Hawaii longline fishery. Staff described how the PIRO permitting database has been integrated with the PIFSC longline catch database, and the difficulties involved in allocating catch to a unique permit slot. The Working Group had chosen the years 2005-2009 to begin their initial exploration of an allocation mechanism and provided an example of the division of the current WCPO longline bigeye tuna catch limit among the fishery participants by permit slot.

G. American Samoa and Hawaii Longline Quarterly Reports

PIFSC staff presented summaries will be given of the fishing performance encountered in the first quarter of 2010 by the Hawaii and American Samoa longline fisheries

H. Bigeye and Yellowfin Tuna Catch Limit Monitoring

A report was given on the near-real time monitoring of the bigeye tuna catch by Hawaii longline vessels fishing in the Western & central Pacific Ocean (WCPO) and the Eastern Pacific Ocean (EPO). Both ocean sectors are under the jurisdiction of separate tuna Regional Fishery Management Organizations (RFMOs), each of which has different longline catch limits for bigeye tuna, (and for yellowfin tuna in the WCPO) . The Hawaii longline fleet total bigeye catch in 2009 was slightly below the current catch limit for the WCPO (3,763 mt), and well below the WCPO catch limit for yellowfin tuna. The Hawaii fleet may reach its annual limit in 2010 in early December, based on the cumulative catch trajectory.

I. IATTC External Review of Bigeye Stock Assessment

Rick Deriso reported on an external review of the IATTC staff's assessment of the bigeye tuna stock in the eastern Pacific Ocean took place May 3-7, 2010. The goals of the review were to evaluate the strengths and weaknesses of IATTC assessment method and assumptions, and to make recommendations that could improve IATTC current methods. The review

recommendations on the stock assessment model improvements will be used in the stock assessments to be presented at the IATTC's annual meeting in September.

J. International Fisheries/Meetings

1. Kobe Bycatch & Management Meetings

The SSC heard with interest the meetings being organized under the Kobe process which includes all the five tuna RFMOs. Council staff reported on an upcoming meeting in Brisbane on bycatch, hosted by the United States, and for which Council staff had provided reviews for the papers being presented at this meeting on shark, finfish, turtle, marine mammal and seabird bycatch

2. Coral Triangle Fishers Forum

Council staff presented on a recent meeting in Bali on fishery bycatch put on by the Coral Triangle Initiative Secretariat. The US was noted for the work it had conducted in reducing se turtle and seabird bycatch.

3. SPC tagging and stock assessment workshops

Pierre Kleiber presented a summary of a two recent SPC meetings on tagging and on a pre-stock assessment workshop. The tagging workshop was a mid-term review of the Pacific Tuna Tagging Project (PTTP), which commenced implementation in 2006. The mid-term review of the PTTP brought together key individuals involved in the current and previous field programs, and some renowned expertise in tuna stock assessment and tagging data analysis to review all aspects of the current PTTP.

The Oceanic Fisheries Programme (OFP) of SPC is contracted by WCPFC to undertake stock assessments for WCPO tunas and other pelagic species. The results of these assessments are presented at the WCPFC Scientific Committee. In preparation for these assessments, OFP hosted a pre-assessment workshop to discuss key issues related to the assessments in April 2010.

4. IFF5

Council staff reported that the Fifth International Fishers Forum on Marine Spatial Planning and Managing Fisheries Bycatch (IFF5) will be held between August 3-5, 2010 in Taipei. The Forum co-hosts are the Western Pacific Regional Fishery Management Council and the Fisheries Agency, Council of Agriculture, Taiwan.

K. Pelagic Plan Team Recommendations

The SSC heard with interest the recommendations on pelagic fisheries made by the Council's Pelagics Plan Team, which were as follows:

CNMI & Guam

1. The Pelagics Plan Team (PPT) reiterates its recommendation that the landings of the emerging CNMI longline fishery should be sampled to obtain average weights and length-weight conversion factors so that logbook catches in numbers can be expressed as weights. Further, landings in both CNMI and Guam need to be reported and sampled to meet both domestic and international fishery management requirements.

2. The PPT recommends that further outreach be conducted by DAWR to seek greater voluntary reporting of fishery landings by fish dealers currently not collaborating with DAWR in reporting commercial fish catches.

3. The PPT recommends that the NMFS PIFSC conduct a study of the apparent correlation between the catch rates of mahimahi and wahoo in the Mariana Archipelago with El Nino-Southern Oscillation (ENSO) events.

4. The PPT reiterates its recommendation that Guam DAWR investigate the potential to survey fishing activity by vessels launched from boat ramps on military property, and work with the military to monitor fishing activity from military property. If the military will not allow DAWR staff to enter military facilities but employs their own personnel to collect data, then the PPT strongly recommends that they liaise with the DAWR staff to ensure compatibility of the survey methodology used for shore-based and boat-based fishery data collection.

American Samoa

5. The PPT recommends that the DMWR be included in pelagic fisheries tagging projects in order to learn mark and recapture techniques and documentation of findings used to investigate the migratory pelagic species in the region.

Region-wide

6. The PPT strongly recommends that the NMFS PIFSC conduct a stock assessment of blue marlin in collaboration with the relevant institutions and science providers for the IATTC and the WCPFC.

7. The PPT recommends that PIRO conduct the necessary administrative action to revise the common and scientific species names of the following four PMUS in the regulations implementing the Pelagics FEP:

Current common name in FEP and regulations	**Current scientific name in FEP and regulations**	**Revised common name**	**Revised scientific name**
Northern bluefin tuna	*Thunnus thynnus*	Pacific bluefin tuna	*Thunnus orientalis*
Striped marlin	*Tetrapturus audax*	Striped marlin	*Kajikia audax*
Indo-Pacific blue marlin	*Makaira mazara*	Blue marlin	*Makaira nigricans*
Black marlin	*Makaira indica*	Black marlin	*Istiompax indica*

8. For the purpose of setting Annual Catch Limist (ACLs) The PPT recommends that the 28 species or species groups (PMUS) currently in the FEP be categorized as follows:

International exception	Ecosystem component	1-year life span
Albacore tuna (*Thunnus alalunga*)	Pacific bluefin tuna (*Thunnus orientalis*)	Diamondback squid (*Thysanoteuthis rhombus*)
Bigeye tuna (*Thunnus obesus*)	Kawakawa (*Euthynnus affinis*)	Neon flying squid (*Ommastrephes bartramii*)
Yellowfin tuna (*Thunnus albacares*)	Other tuna relatives (*Auxis* spp, *Scomber* spp, *Allothunnus* spp)	Purple-back flying squid (*Sthenoteuthis oualaniensis*)
Skipjack tuna (*Katsuwonus pelamis*)	Black marlin (*Istiompax indica*)	
Blue marlin (*Makaira nigricans*)	Shortbill spearfish (*Tetrapturus angustirostris*)	
Striped marlin (*Kajikia audax*)	Sailfish (*Istiophorus platypterus*)	
Swordfish (*Xiphias gladius*)	Pelagic thresher shark (*Alopias pelagicus*)	
Bigeye thresher shark (*Alopius superciliosus*)	Common thresher shark (*Alopias vulpinus*)	
Shortfin mako shark (*Isurus oxyrinchus*)	Silky shark (*Carcharhinus falciformis*)	
Blue shark (Prionace glauca)	Oceanic white-tip (*Carcharhinus longimanus)*	
Mahimahi (*Coryphaena* spp)	Longfin mako shark (*Isurus paucus*)	
Wahoo (*Acanthocybium solandri*)	Salmon shark (*Lamna ditropis*)	
Moonfish (*Lampris* spp)	Other Gempylidae	
Oilfish (*Ruvettus pretiosus*) Escolar (*Lepidocybium flavobrunneum*)		
Pomfrets (*Taractichthys steindachneri, Eumegistus illustris*)	Other Bramidae	

The SSC supported the recommendations made by the Pelagics Plan Team

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

Report of the 104th Meeting of the Scientific and Statistical Committee

June 22-24, 2010
New Otani Hotel
Honolulu, Hawaii

8. Protected Species

A. False Killer Whale Take Reduction Team Meeting Report

PIRO staff gave a presentation on false killer whale (FKW) bycatch in the Hawaiian EEZ (including Palmyra Atoll) that comprises 3 killer whale stocks. A FKW Take Reduction Team (TRT) has been set up to develop a Take Reduction Plan (TRP). A TRP implemented under the MMPA is designed to assist recovery and prevent depletion. The FKW TRT has 6 months to develop a draft TRP for NMFS consideration. Possible management measures could include use of circle hooks and marine mammal handling/release workshops. Evaluation of the circle hook as a viable hazard mitigation option was identified as a high research priority. **The Potential Biological Removal (PBR) used by the TRT uses a recovery factor = 0.4, and the SSC seeks clarification as to how the 0.4 level was selected from the range of 0.1-1.0.**

B. Cetacean Survey Methodology

PIFSC staff gave a presentation on biopsy sampling used for genetic analysis and assessment of contaminant loads. Questions have been raised as to whether biopsy sampling causes serious injuries to cetaceans. PIFSC staff presented information to the effect that biopsies are not currently considered to cause a serious injury or behavioral modification in most circumstances. PIFSC staff also gave a presentation on cetacean survey methodology suitable for assessing FKW abundance. Two ship-board surveys are planned over the next year to focus on assessing FKW distribution and abundance in the Hawaiian EEZ. Abundance estimation will be based on multi-observer line-transect distance sampling approaches coupled with comparison of acoustic detection to visual detection.

C. Updates on Endangered Species Act Issues (83 Species of Coral, Bumphead Parrotfish, Sea Turtles, and False Killer Whale)

PIRO staff gave a presentation on ESA related issues such as Section 4 petition responses. There are currently 6 petitions with NMFS. Of particular concern to the SSC is a petition to list the North Pacific loggerhead turtle as an endangered Distinct Population Segment and a petition to list the HI insular FKW population as endangered. These are 2 species caught incidentally in the Hawaii-based pelagic longline fishery. Also of concern to the SSC is the petition to list the bumphead parrotfish, which is a wide-spread species that may be subject to overfishing in only a few areas. Further, the SSC is concerned that the listing of 83 coral species, 75 of which occur within the U.S. Pacific Islands region, may have impacts to sustainable indigenous fishing practices in the Western Pacific region. Moreover, the listing of these corals may have serious impacts on sustainable harvests of coral and live rock in the Pacific islands which export most of

their inventory to the U.S for the aquarium trade.

D. American Samoa Longline Amendment Consultation

PIRO staff gave a presentation on ESA consultation for the American Samoa longline fishery that involves incidental take of ESA-listed species such as the green turtle. New regulations might require setting hooks deeper than 100m to reduce incidental take. Observer coverage in this fishery will be increased to around 30-40% later this year. A draft Biological Opinion is due around August 12, 2010. The SSC looks forward to reviewing the Biological Opinion at its next meeting.