



**109<sup>th</sup> Meeting of the Scientific and Statistical Committee  
Council Office  
February 21-23, 2012**

**1. Introductions**

**2. Approval of Draft Agenda and Assignment of Rapporteurs**

**3. Status of the 108th SSC Meeting Recommendations**

**4. Report from the Pacific Islands Fisheries Science Center Director**

Sam Pooley, Director of the PIFSC, highlighted several items from the PIFSC briefing materials. He discussed the PIFSC fast-track bigeye tuna catch monitoring program and described how Congress changed the management mechanism late in calendar year 2011. The process in place is on track for timely reporting in 2012. Pooley also discussed the ISC Billfish Working Group's 2011 striped marlin stock assessment, which has shown the species to be in an overfished status by US definitions over the last 15 years. Overfishing has also been routinely occurring by the same US definitions.

However, there are yet no international reference points for these stock metrics. The assessment is currently awaiting International Scientific Committee approval in July 2012, with further review this year by the Center for Independent Experts. The situation with North Pacific striped marlin in the Western and Central Pacific Ocean (WCPO) is extremely dire. However, Hawaii-based longliners contribute only a small fraction of the WCPO striped marlin catch (~10%). Further, Kona charter fishermen have a very high release rate (~90%) for this species.

Pooley also reported on several other items including: creel surveys and bio-sampling improving data contributing towards ACL specification in American Samoa, CNMI, and Guam; swordfish vertical habitat research which may be useful for mitigating interactions with loggerhead and leatherback turtles; the Mariana Islands traditional fishing pattern interviews and cost-earning study which are assisting development of the science plan for the Marianas Monument; and lastly mentioned that the NOAA research vessels Oscar Elton Sette and Hi'ialakai will be conducting research in American Samoa waters this year.

The SSC thanked Dr Pooley for an informative presentation.

**5. Insular Fisheries**

**A. Action Item**

**1. Draft Monument Fish Regulations**

Council Staff reviewed the Council's Draft Fishery Ecosystem Plan (FEP) Amendments for the

Rose Atoll, Marianas Trench, and Pacific Remote Island Area Marine National Monuments (MNM) non-commercial fishing regulations. A NMFS letter responding to these Draft Amendments recommended that the Council consider additional options related to trip cost reimbursement limits, bag limits, a time frame for defining "traditional fishing" and consistency of 0-12 nm no-take areas with USFWS authority.

**Council staff presented a Draft Supplemental Options Paper in response to the NMFS' suggestions. The SSC concurs with the methodology used to assess fishery productivity and sustainability in the Monument areas .**

The SSC notes that within Pacific island communities:

- 1) Unreasonable restriction of indigenous fishers' access to traditional fishing grounds can result in significant social, economic, and cultural degradation; and
- 2) Unreasonable restriction of fishing for ceremonial and customary purposes, and customary exchange can result in significant loss of heritage, personal status, and community solidarity and cooperation.

**It is the position of the SSC that the suggestions put forward by the NMFS regarding cost reimbursement and bag limits are potentially damaging to American Samoa and Marianas indigenous fishing communities, and unreasonable especially since the existing draft FEP amendment recommendations require permits and catch reporting.**

## **2. SSC Working Group on Customary Exchange**

SSC member Craig Severance, presented a report from the SSC's Working Group on Customary Exchange. The group provided additional information to Council staff to support the description of Customary Exchange in the region which will strengthen the amendment document. Recent interview data from CNMI fishermen was provided by Stewart Allen and PIFSC Human Dimensions staff. This information indicates that non-commercial and commercial fishing (in the MSA-sense) has occurred in the Northern Islands prior to becoming a Monument. The fish harvested on these trips are regarded with high value in CNMI communities. In addition, interviewees indicated that even if fish were sold from these trips that they do not consider it commercial fishing as it was small scale and the fish stayed within the community.

The Working Group gave serious consideration to the concerns expressed in the NMFS letter. The Working Group developed trip cost estimates for Manua and Tutuila fishermen fishing in the Rose Atoll MNM and for CNMI fishermen fishing in the Islands Unit. The Working Group noted the Alaska Subsistence Halibut example, whereby a limit on cash reimbursement changed subsistence fishermen's behavior and furthermore was difficult to enforce. In any case, this limit has now been lifted. Moreover, existing trip costs to fish non-commercially in the Monuments are prohibitive. Therefore, it is unlikely that fishermen would be willing or able to access the areas for traditional fishing, unless a culturally appropriate mechanism for partial cost reimbursement is in place.

The Working Group supported previous SSC positions favoring Customary Exchange.

Specifically, cost reimbursements limits would undoubtedly change fishermen's behavior as it

relates to customary exchange. Bag limits are not necessary as permits and logbooks are required. These requirements will allow Monument managers to know who is fishing and how much fish is being harvested. In addition, fishing effort is expected to be so low as to not pose any threat to any fish stock occurring in the Monuments. On the issue of defining the timeframe for traditional indigenous fishing to be limited to the time the Proclamations were established, the SSC working group indicated that such a suggestion is culturally insensitive, and based on a misunderstanding of cultural change and continuity.

The SSC concurs with the working group report and findings. In addition, the SSC suggests that the Council consider a requirement that any fish harvested from the Monuments stay within respective island communities. This should alleviate some of NMFS' concerns in relation to commercial fishing.

**The SSC recommends that cost reimbursement limits, bag limits, and using a date for defining "traditional fishing practices" not be implemented, i.e the SSC supports the No Action options.**

#### **B. Update of Territory Bottomfish Stock Assessments**

Gerard DiNardo, PIFSC, informed the SSC that the Territory Bottomfish Stock Assessments would be completed in 6 to 8 weeks and after WPSAR review be ready for the next SSC meeting in June 2012.

#### **C. EFH/HAPC for Territory MUS**

Danielle Jayewardene, PIRO, updated the SSC on progress of efforts to refine Essential Fish Habitat and Habitat Areas of Particular Concern (EFH/HAPC) for MUS in the U.S. possessions other than Hawaii. For bottomfish, the EFH remains from 0-400 m. However, the number of sub-complexes was increased from two to three. There were not enough data to warrant re-designation for either pelagic or precious coral EFH/HAPC.

#### **D. WPSAR Review of EFH/HAPC for Territory MUS**

The SSC heard from Council staff that another WPSAR EFH/HAPC review may be held prior to next Council meeting in June for other MUS besides bottomfish.

#### **E. Discussion on Hawaii Cetacean Genetics**

Kim Andrews (HIMB) and SSC member Brian Bowen presented on the genetics of six Hawaiian odontocetes (toothed whales). The analyses of mitochondrial DNA and micro-satellites indicate significant genetic divergence among island associated groups for the 6 species analyzed. This suggests that there is a large number of stocks for this group of marine mammals across the Hawaiian archipelago. SSC members discussed the management implications of these results. The SSC noted that refining these populations into smaller stocks could have significant negative impacts to the fishing industry. The SSC also noted that samples were only collected from the leeward side of the Hawaiian Islands, and thus may misrepresent stock structure and size.

The SSC thanked Kim Andrews and Brian Bowen for their presentation.

## **6. Pelagic Fisheries**

### **A. Amendment Options for American Samoa Shallow-Set Longline Fishing**

Council staff presented the Amendment to the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific Region. Measures to Implement a Shallow-set longline Fishery for Swordfish in American Samoa, Including an Environmental Assessment and Regulatory Impact Review.

The SSC understands that there is currently considerable interest in fisheries development, despite the poor economic returns from past shallow-set fishing trials for swordfish. Though experimental fishing permits could be utilized under Alternative 1, it was suggested that this alternative might be construed as discouraging development. Since the same species of turtles are present in the area of a potential Samoa-based shallow-set fishery as in the Hawaii fishery, the SSC believes turtle interactions would be likely to be an issue but that the Hawaii gear restrictions would likely be as effective in American Samoa. In contrast, there are both different and more bird species in the S. Pacific, and no protected bird species nest in Samoa. Thus, the SSC is uncertain whether there would be similar bird interaction issues or whether the North Pacific management actions would be effective. WCPFC seabird mitigation measures (WCPFC CMM 2007-04) would still be required for operations south of 30°S.

**Based on these considerations, the SSC recommends Alternative 3, with an initial 100% observer coverage to document interactions with both birds and turtles.**

Alternative 3 amends the PFEP to permit the use of shallow-set longline fishing to target swordfish employing the full suite of mitigation measures required for sea turtle mitigation in the Hawaii shallow set fishery, but without specific seabird mitigation measures.

### **B. Economic Impact for Hawaii-Based LL Fish. Establishing Size Categories for Striped Marlin and Blue Marlin**

SSC heard a presentation by Keith Bigelow (PIFSC) on the potential impacts of alternative striped and blue marlin length limits on the revenue of the Hawaii-based longline fisheries. Using existing landing statistics as an example, the annual average fleet revenue loss due to eye-fork length limits of 150 cm and 180 cm would have been \$351,000 (29.2%) and \$958,000 (84.1%) for striped marlin and \$27,000 (3.8%) and \$368,000 (50.4%) for blue marlin. Bigelow also noted that the reduction in landings would be affected by the catch discards, both dead and alive marlins. These revenue losses were compared to the alternative of requiring the use of circle hooks to reduce marlin catches.

### **C. Longline Sea Turtle Hard Caps**

Amendment 18 established hard caps on the take of loggerhead and leatherback sea turtles, and required 100% observer coverage to enumerate takes. The recent BiOp does not set hard caps for

these sea turtles and does not require 100% coverage. The BiOp states that NMFS shall maintain observer coverage at rates that have been determined to be statistically reliable for estimating protected species interaction rates. **The SSC recommends that the Council request NMFS PIFSC provide the SSC with an analysis of an appropriate observer coverage level for the shallow-set fishery that would lead to reliable interaction estimates.**

#### **D. Stock Status of WCPO Bigeye Tuna**

Adam Bailey gave an overview of the most recent assessment for bigeye tuna in the Western Central Pacific Ocean (WCPO). According to the base case in the assessment, the WCPO stock is currently experiencing overfishing but is not yet in an overfished condition. However, under some other scenarios considered in the assessment, the bigeye stock is overfished or approaching being overfished. The SSC calls the Council's attention to the fact that under the existing Pelagics FEP control rule, NMFS has determined that this stock is not overfished. The SSC notes that the US overfishing definition is less conservative.

Stock status determination in WCPFC currently uses MSY-based reference points by default, but has yet to formally adopt specific reference points. The SSC noted that the F-based overfishing indicator ( $F_{current}/F_{msy}$ ) is more useful for management than the biomass-based indicator ( $B_{current}/B_{msy}$ ), which is more sensitive to trends or fluctuation in recruitment. A peer review of the 2011 assessment is scheduled to be conducted at SPC in late April 2012.

#### **E. American Samoa and Hawaii Longline Quarterly Reports**

David Hamm and Russell Ito presented 2011 fourth quarter and annual reports for the American Samoa and Hawaii longline fisheries

#### **F. International Fisheries Meetings**

Council staff reviewed the agenda for the eighth regular session of WCPFC, noting that this session would consider a new CMM for tropical tunas.

The SSC briefly considered briefly a series of recommendations agreed to by representatives from the Hawaii longline fishery, US purse seine industry, and US Territories that were brought forth for consideration by the Permanent Advisory Committee (PAC) to the U.S delegation to the WCPFC. The SSC had no specific advice to offer the Council on the content of the document.

### **7. Protected Species**

#### **A. Marine Mammal Assessments**

##### **1. Hawaiian Islands Cetacean and Ecosystem Assessment Survey Analyses**

Erin Oleson (PIFSC) reported on Hawaiian Islands marine mammal surveys to better define false killer whale stock structure and abundance. A new island-associated NWHI stock has been identified, which overlaps with the pelagic and insular stocks. The issue of estimating pod or

group size was addressed to better estimate abundance using a distance-based sampling approach. The new approach will also more accurately estimate uncertainty.

The SSC thanked Erin Oleson for an informative presentation.

## **2. Draft Revisions to the Guidelines for Preparing Marine Mammal Stock Assessment Reports**

Erin Oleson (PIFSC) reported on proposed revision to the guidelines for marine mammal stock assessment reports (SARs) based on a workshop convened in February 2011. A key focus of the workshop was the use of PBR (potential biological removal) based on outdated abundance estimates. The new guidelines propose a method to incorporate estimates of uncertainty into calculation of PBR and include use of a worst case scenario to apply after year 8, which assumes a 10% annual decline in abundance.

SSC pointed out that even in the case of an increasing population trend, use of the worst case scenario would cause an immediate one-year plummet in the PBR following 8 years if a re-survey has not been conducted. Oleson noted this was a hotly debated point during the workshop and encouraged comment on this issue. The threat of a sharp drop in PBR is supposed to provide an incentive for the agency to conduct more frequent surveys.

Oleson also said that the guidelines do allow consideration of other information (aside from a formal abundance estimate) to avoid applying the worst case scenario. SSC also commented that there may be a blurring of the issues and between science and policy in the new guidelines that should be rectified in the document.

Another key issue was how best to deal with assessment of very small stocks. The workshop resulted in a number of recommended changes to the SARs. The public comment period on these proposed revised SAR guidelines is still open until 26 March 2012. SSC members are invited to provide any substantive comment on the guidelines to Council staff for their inclusion in a Council comment letter.

**The SSC supports efforts to provide more robust estimates of abundance uncertainty. The SSC recommends adequate support and funding to conduct marine mammal abundance surveys in the region at least every 5 years.**

The SSC thanked Erin Oleson for an informative presentation.

## **B. Update on ESA and MMPA Actions**

Pat Opay (PIRO) provided an update on the status of six ESA Petitions: 1) the critical habitat revision for the Hawaiian monk seal; 2) listings for the Hawaiian insular false killer whale; 3) bumphead parrotfish; 4) scalloped hammerhead shark; 5) 82 corals; and 6) delisting for the Hawaiian green sea turtle. Final Rule or Listing Decisions are due soon for the monk seal, 82 corals, and insular false killer whale. He also reported on various MMPA actions including the Hawaii false killer whale take reduction proposed rule for which a Final Rule Decision is pending. In the 2012 final List of Fisheries, Hawaii charter and troll fisheries were not

reclassified as was proposed, but NMFS received a great deal of public comment and will continue to review information and determine whether reclassification is warranted in the future.

The SSC thanked Pat Opay for an informative presentation.

### **C. New Biological Opinion for Shallow-Set Longline Fishery**

Dawn Golden (PIRO) reported on the reinitiated Section 7 Consultation for the Hawaii shallow-set longline fishery and interactions with sea turtles and marine mammals. It was determined that the proposed fishery (5500 sets annually for the next 25 years) would pose little risk to the long-term viability of either the north Pacific loggerhead or the western Pacific leatherback. There would also be beneficial spillover effects due to the anticipated reduction in foreign fleet fishing impacts as the US fishery production increased. The proposed action would not jeopardize any of the 5 species exposed to the Hawaii-based longline fishery so species-specific levels of incidental take are authorized.

The SSC thanked Dawn Golden for an informative presentation.

### **D. Sea Turtle Post Release Mortality Workshop**

Keith Bigelow (PIFSC) reported on a recent sea turtle post-release mortality Webinar-based workshop convened in November 2011. The purpose of the workshop was to review recent developments in estimating post-release mortality and whether there was a need to revise the mortality estimates used by the NOAA Fisheries Service in Biological Opinions. The workshop did not propose a new set of mortality coefficients but suggested lines of research that could be productive.

It was pointed out that pooling of electronic tagging data from different researchers might provide better estimates of post-release mortality. The SSC encourages pooling of electronic tagging data within and between agencies for subsequent meta-analysis.

The SSC thanked Keith Bigelow for an informative presentation and commends Yonat Swimmer and Eric Gilman for successfully convening the webinar workshop under challenging conditions.

### **E. Migratory Bird Treaty Act Permit for a Shallow-Set Longline Fishery Draft Environmental Assessment**

Brett Wiedoff (PIRO) reported on a U.S. Fish and Wildlife Service (USFWS) draft environmental assessment on NMFS' application for a permit that would authorize incidental take of sea birds by the Hawaii-based shallow-set longline fishery. This is the first time someone has applied for such a permit for fisheries. The USFWS' preferred alternative was to grant a three-year permit with mitigation measures as proposed. USFWS is currently reviewing public comments.

The SSC thanked Brett Wiedoff for an informative presentation.

## **8. Program Planning**

### **A. Review of the Data Collection Programs in the Western Pacific**

The SSC expressed its appreciation for Sunny Bak's review of regional data collection programs and recommendations for improving catch data collection. The SSC notes that the Territory creel surveys might be adequate only for Tier 5 specifications of Acceptable Biological Catch (ABC) and Annual Catch Limits (ACLs). Therefore, the SSC discussed whether it might be worthwhile re-allocating resources to other forms of data collection. **The SSC reiterated its long-held position that permitting and reporting for all sectors may be the only way to get data adequate for ACL estimations, and model-based estimations of catch.**

### **B. Fishery Data Collection Improvement Workshop**

Marlowe Sabater summarized the recent Fishery Data Collection Improvement Workshop noting that the intent of the workshop was to identify and prioritize data collection issues and solutions for the 3 parts of the region outside Hawaii. The strong commitments made by the respective Directors of the Territory and Commonwealth fishery agencies to work to improve data collection and the cost estimates for the prioritized solutions were noted.

### **C. Hawaii Non-Commercial Data Workshop**

Council staff briefly summarized the Hawaii Non-Commercial Data workshop and noted the proposed boat-based recreational fishery survey being developed in cooperation with PIRO.

### **D. Methodology for Reef Fish Visual Survey Length-Based Models**

The SSC heard a presentation on a Methodology for Reef Fish Visual Survey Length-Based Models by Marc Nadon (PIFSC). SSC members expressed appreciation for a good study, project and presentation. SSC members reached consensus that this was a method that could be further developed and used as an option for management unit species in further development of ACLs.

### **E. ACL Data Workshop**

The SSC heard a report on the ACL Data Workshop by Council Staff. There were a number of options presented on strategies for improving the development of ABCs and ACLs for Coral Reef species. It was suggested that staff and SSC begin work this year for next year's ACL specifications, using options for various species, documenting and justifying the choice of method. This includes use of additional fishery independent data for certain species and a method suggested by Council Staff for using biomass, catch and mortality as a way of estimating MSY.

### **F. Cooperative Research Proposal**

The SSC heard the report on the outcome of the Cooperative Research Proposal solicitation and noted Council staff concerns about the lack of consultation by NMFS and opportunity for clarification in the final review process.



## **9. Other Business**

Sam Pooley was asked to address the SSC on how the relationship between SSC and NMFS PIFSC could be improved. This included addressing issues such as the expectations from NMFS PIFSC and SSC for WPSAR stock assessment reviews.