



127th Meeting of the Scientific and Statistical Committee
October 10-12, 2017
Kauai Beach Resort, Lihue, HI

REPORT

4. Report from the Pacific Islands Fisheries Science Center Director

Mike Seki, Director of the NMFS Pacific Islands Fisheries Science Center (PIFSC), provided an update on the Center's activities. These included launching the Hawaii Community Snapshot Online Tool to provide time series information on levels of fishing involvement and demographic characteristics for Hawaii communities. Other work included convening the 1st Annual Pacific Islands Region Collaborative Climate Science Workshop, ongoing research on protected species biology and abundance, fishery data collection and management, and bottomfish research and stock assessment.

The SSC thanked Seki for his report.

5. Insular Fisheries

A. Alternatives for Aquaculture Management (Action Item)

Council staff provided the SSC with options for managing aquaculture in the Western Pacific region. Staff provided a background on the action and presented options that the Council may choose as a preliminary preferred option at its 171st Meeting. Staff reviewed each option by program component and provided an analysis of each option. Council staff noted that the Draft Programmatic EIS will be published at the end of the year.

The SSC looks forward to the PEIS release later this year as a valuable scientific reference document. In the interim, the SSC discussed the Aquaculture Management Program options presented and recommends an unbundled approach blending some components of options 1, 2, and 3 from the briefing document.

The SSC recommends that:

- **Permits be required for aquaculture operations, with consideration given towards allowing transferability and potential bundling of siting, operations, and dealer permits.**
- **Aquaculture permits possess a use it or lose it provision.**
- **Aquaculture permits cover a designated time period of at least 5-years and be renewable.**

- **No specific restriction be imposed on allowable aquaculture systems but that the chosen systems are thoroughly documented in the permits to address breakage and navigational hazard concerns.**
- **Aquaculture zoning and monitoring be established with careful attention towards minimizing fishery conflicts and negative environmental impacts especially in HAPCs.**
- **Aquaculture operations culture species listed in the FEP or that naturally occur in the archipelago, while noting that some existing aquaculture operations of exotic species are quite successful and safe, such that this species constraint might be revisited in the future.**
- **Aquaculture operations maintain thorough records of production, escapes, recaptures, protected species interactions, safety, gear conflicts, gear failure, disease, broodstock, and water quality monitoring.**
- **Aquaculture operations exist under frameworkable measures and that an Aquaculture AP be established.**

B. Main Hawaiian Islands Deep 7 Bottomfish Fishery

1. Report on outcomes from the Bottomfish Commercial Fishery Data Workshops

Annie Yau, PIFSC, presented the outcome of the Bottomfish Commercial Fishery Data Workshops. The goals of the workshops were to: 1) Identify and agree upon issues that affect the quality and consistency of DAR data on MHI Deep 7 bottomfish fishing; 2) Investigate and agree upon an acceptable resolution to each issue, understanding that some issues may not be fully resolvable and/or may not have a significant effect on stock assessment results; 3) Finalize a document describing the issues discussed and the agreed-upon resolution for each; and 4) Apply the list of resolutions to a copy of the DAR's commercial FRS data to create a higher quality data suitable for stock assessments.

The SSC appreciates this data improvement effort which included broad statewide representation from fishers. It was noted that the DBOR data merging with FRS data to assist in standardizing CPUE for a vessel size effect should still be pursued.

The SSC thanked Yau for the informative presentation.

2. Report on relative abundance estimation from the 2016 bottomfish fishery-independent survey

Ben Richards, PIFSC, presented on the bottomfish fishery-independent survey cooperative research work conducted by the Pacific Islands Fishery Science Center. The goal of the Bottomfish Fishery-Independent Survey for the Hawaii Deep-7 stock (BFISH) is to produce an accurate, precise, and cost-effective estimate of population length-structured abundance and biomass for use in stock assessment. The fishery independent surveys are comprised of multiple methods to capture abundance data: 1) research fishing; 2) drop camera; 3) autonomous underwater vehicle (AUV); and 4) acoustic surveys using Simrad EK60. The sampling design and preliminary data were presented from the research fishing and the drop camera. AUV and acoustic surveys are still considered in the R&D phase of development.

The BFISH survey had 540 stratified random samples (research fishing 455, drop camera: 85), with a gear-intercalibration analysis using a relative fishing power approach. The SSC remains interested in the survey of BRFA's and their effect in the bottomfish stock assessment process. Tide and currents were mentioned as important covariates for both types of survey gear and should be included where possible.

The SSC thanked Richards for the informative presentation.

C. Evaluating Management Unit Species in need of conservation and management in the American Samoa, Marianas, and Hawaii Fishery Ecosystem Plans

1. Final Results of the Ecosystem Component Analysis

Council staff presented on the results of the multivariate analysis to screen species in need of conservation and management and ecosystem components for American Samoa, Guam, and Commonwealth of the Northern Mariana Islands. The analytical framework utilized 5 of the 10 factors described in the revised National Standard 1 guidelines that need to be considered when determining if a stock is in need of conservation and management. Six of the twelve recommendations were addressed in the final analysis that includes: 1) plotting catch over time to determine vulnerable species; 2) exploring different cut-off approaches; 3) conducting PERMANOVA; 4) exploring effects of changing the sequence of the filters; 5) using the BioSampling data in adding and removing species; and 6) convening the Ecosystem Component Working Group. The cut-off level dictates the number of species retained after all filters are applied. The higher the cut-off the less number of species retained. The report generated a list of species to be considered as in need of conservation and management.

The final species compositions were the same for different orders of the filtering criteria (i.e., the order of filters did not affect the outcome). The SSC noted that it would be important to distinguish between low catch due to an overfished stock vs. low catch due to, for example, low fishery importance, low overlap with gear, non-targeted, or naturally rare species.

2. Ecosystem Component Expert Working Group Report

SSC member Craig Severance reported on the outcomes of the Ecosystem Component Expert Working Group evaluation of the preliminary list of species generated from the multivariate analysis and the catch screening conducted by the PIRO contractor. The working group refined the species list based on economic, socio-cultural, management, and regulatory considerations. The final list of species from the working group deliberation comprises the species in need of conservation and management.

It was noted that voting was not needed for these subcommittee deliberations and that a single minority report was included in the report. The SSC did not suggest any specific changes to the species lists that the working group had recommended be retained as species in need of conservation and management so they could benefit from active management for each of the jurisdictions

The SSC thanked Severance for the informative presentation.

3. Options for Designating Management Unit Species Into Ecosystem Components (Action Item)

Council staff presented the options to designate management unit species as in need of conservation and management and as ecosystem components. The SSC considered two options: option 1: no action where all the MUS will be retained in the FEP as in need of conservation and management; option 2: classify species based on factors described in the National Standard 1 guidelines. Once the NS1 factors are applied, species can be classified as in-need of conservation and management (sub-option 2.1) and as species not in-need of conservation and management (sub-option 2.2). The final species reviewed by the Ecosystem Component Expert Working Group are the species that will be listed as in-need of conservation and management. All the remaining species in the American Samoa, Marianas, and Hawaii FEPs are considered not in need of conservation and management. These species can be classified as either Ecosystem Components (sub-option 2.2.1) or be removed from the FEPs (sub-option 2.2.2).

The SSC recommends adoption of option 2 to classify species based on factors described in the National Standard 1 guidelines, and further recommends removing sub-option 2.2.2 in order to retain species in the FEP. The SSC recommends adopting the specific species lists developed through the filtering process for continued inclusion as MUS.

D. Hawaii Coral Reef MUS Acceptable Biological Catch (ABC)

1. SSC Working Group Report on the Best Scientific Information Available Evaluation for the 27 Hawaii Coral Reef Fish Species

SSC chair Jim Lynch presented the overview of the process the SSC subgroup used to evaluate the stock assessments of 27 species coral reef fish in the main Hawaiian islands. Four subgroup members provided individual independent reviews on all 27 species utilizing an agreed upon evaluation criteria identified as issues in the previous WPSAR panel review. Each member of the Subgroup was asked to score with: “suitable”, “not suitable”, and “maybe suitable”. The evaluation criteria were: 1) reliability of the survey data; 2) reliability of the catch data; 3) availability of local life history parameters and the reliability of the parameter estimator results; 4) reliability of the mean length estimates; 5) extent of the negative fishing mortality (F) effects; 6) adequate simulation and sensitivity testing conducted; and 7) validity of the equilibrium assumption.

The Subgroup concluded that at least four of the species, *Aprion virescens*, *Lutjanus fulvus*, *Lutjanus kasmira*, and *Parupeneus porphyreus*, likely warrant species-level management action, particularly for ACL specification. This is because the Subgroup concluded that available information was sufficiently transparent, reliable, and free of bias to recommend management action. The remaining 7 species that may warrant management action include: *Acanthurus dussumieri*, *Naso lituratus*, *Parupeneus cyclostomus*, *Parupeneus insularis*, *Chlorurus spilurus*, *Scarus dubius*, and

Cephalopholis argus. This is because while information is incomplete, the Subgroup determined a sufficient basis exists to recommend management action. However, further discussions at the SSC plenary and the additional meeting of the Subgroup assigned the 7 species with the rest of the 16 that do not warrant management action on a species level. Having a mean index score of less than 0.5 does not justify a single species management action. In addition, the two parrotfish species lack single species catch monitoring hence they cannot be evaluated against an ACL.

The SSC thanked Lynch for the informative presentation.

2. P* Working Group Report

SSC member Ryan Okano presented the outcome of the P* working group meeting. The working group evaluated the scientific uncertainties of the stock assessment method based on criteria under the Assessment Information and Uncertainty Characterization dimension. The working group also evaluated the uncertainties for each of the 27 coral reef fish species report under the Stock Status and the Productivity-Susceptibility Dimensions. The working group generated individual species risk of overfishing (P*) levels that the SSC can consider in setting the Acceptable Biological Catch (ABC).

The SSC thanked Okano for the informative presentation.

3. 2018 ABC Specification of Hawaii Coral Reef MUS (Action Item)

Council staff presented the options for the specification of the ABC for the 27 coral reef fish species in the main Hawaiian islands. The SSC considered the following options: 1) no ABCs and Accountability Measures (AM); 2) roll over the 2016 ABCs using the catch at 30% Spawning Potential Ratio (C30) from the new assessment to verify the current ABCs; 3) specify ABCs at species level based on the new assessment; 4) specify the ABCs at family level using the assessed species as indicator species.

There was extensive SSC discussion on the 4 options and the subcommittee scoring process. The first two options are not viable because they may not comply with the MSA, NS1, NS2 and FEP requirements for ABC specification. For the species assessed, the SSC utilized a combination of option 3 and 4 for the species evaluated by the SSC Subgroup members.

The SSC recommends specifying species-level ABCs for the following 4 species: *Aprion virescens*, *Lutjanus fulvus*, *Lutjanus kasmira*, and *Parupeneus porphyreus*. The SSC recommends using the C30 from the Underwater Visual Surveys (UVS) as recommended in the assessment document. For *Aprion virescens*, the SSC noted that the ABC from the UVS C30 is conservative due to the limited depth at which the surveys were conducted. For *Parupeneus porphyreus*, the SSC chose the ABC from the catch C30 because it was more conservative due to the stock status.

The ABCs for these species are as follows:

Species	P* level	ABCs (lbs)
<i>Lutjanus kasmira</i> (taape)*	42	464,950
<i>L. fulvus</i> (toao)*	36	64,595
<i>Aprion virescens</i> (uku)	42	127,205
<i>Parupeneus porphyreus</i> (kumu)***	39	2,243

[* introduced species] [*** indicates <SPR30]

The SSC recommends the other 20 species listed in the table below be used as biological indicators to represent the management unit species within the existing taxonomic families. For Acanthuridae, the SSC recommends using the C30 from the UVS as recommended in the assessment document. However, since *Naso hexacanthus* has no UVS derived ABC, the ABC was derived from the catch-C30. For Mullidae, the SSC recommends using the C30 from the UVS as recommended in the assessment document. However, since *Mulloidichthys pfluegeri* has no UVS derived ABC, the ABC was derived from the catch-C30.

The ABCs for the indicator species are as follows:

Family	Indicator species	P* level	ABCs (lbs)
Acanthuridae	<i>Acanthurus dussumieri</i> (palani)	24-40	496,085
	<i>Naso lituratus</i> (umaumalei)***		
	<i>Naso brevirostris</i> (kala lolo)***		
	<i>N. unicornis</i> (kala)***		
	<i>Acanthurus blochii</i> (pualu)***		
	<i>N. hexacanthus</i> (kala lolo)***		
Carangidae	<i>Caranx melampygus</i> (omilu)	27-32	21,178
	<i>Carangoides orthogrammus</i> (ulua)		
	<i>Caranx ignobilis</i> (ulua aukea)***		
Mullidae	<i>Parupeneus insularis</i> (munu)	34-44	158,740
	<i>P. cyclostomus</i> (moano)***		
	<i>Mulloidichthys vanicolensis</i> (weke'ula)		
	<i>M. flavolineatus</i> (weke'a)		
	<i>M. pfluegeri</i> (weke nono)		
Scaridae	<i>Scarus dubius</i> (lauia)	31-39	380,050
	<i>Chlorurus spilurus</i> (uhu)***		
	<i>S. psittacus</i> (uhu)		
	<i>Chlorurus perspicillatus</i> (uhu uliuli)		
	<i>S. rubroviolaceus</i> (uhu ele'ele)***		
	<i>Calotomus carolinus</i> (ponuhunu)***		

[*** indicates <SPR30]

For *Cephalopholis argus* (roi), also an introduced species, the SSC recommends an ABC of 238,758 lbs (at P*=41%). This is based on C30 from the UVS as

recommended in the assessment.

For *Monotaxis grandoculis* (mu), the SSC recommends utilizing the current ABC of 36,600 lbs because there was insufficient scientific information to specify a new ABC for this species. This ABC is equivalent to <10% risk of overfishing in the new assessment.

For *Myripristis berndti* ('u'u), the SSC does not recommend an ABC for this species. There is no reliable catch data to verify the validity of the mean length estimates from the UVS. Some of the life history parameters were from a different species from a different geographic location. The stepwise approach was not applied. The population estimates were severely biased downward. This species is also a candidate for ecosystem components.

For the remaining CREMUS in the Hawaii FEP not covered by the stock assessment, the SSC recommends retaining the current ABCs based on the Biomass-Augmented Catch MSY approach.

The ABCs for these complexes are as follows:

Species Complex	Current ABCs (lbs)
<i>Selar crumenophthalmus</i> (akule)	1,025,000
<i>Decapterus macarellus</i> (opelu)	459,800
Carcharhinidae (reef sharks)	9,800
CR-crustaceans	35,400
Kyphosidae (rudders)	108,600
Labridae (wrasse)	211,000
Mollusk	38,200
Mugilidae	20,100
All CREMUS combined	496,500

For the remaining species in the Lutjanidae and non-deep 7 complex, the SSC recommends NMFS to calculate the OFLs based on the BAC-MSY approach in order to complete the ABC specifications for the Hawaii FEP

E. Precious Corals Management Issues

1. Refining Precious Corals Essential Fish Habitat

Council staff presented an update on the refinement of precious corals essential fish

habitat (EFH), beginning with a review of available sources of information on the distribution of precious corals. These information sources include NOAA's National Database of Deep-Sea Corals and Sponges, Hawaii Undersea Research Laboratory's unpublished dataset of observations from their video archive, predictive modeling of the distribution of precious corals in the Main Hawaiian Islands, and the State of Hawaii commercial marine license dataset, and scientific publications. Staff is developing options for the geographic extent of the benthic phase of deep water precious coral EFH in the Hawaiian Archipelago, because not enough new information exists to describe EFH for the larval phase, or either life stage in the territories. Staff will finalize the options paper with precious coral experts for later SSC and Council review.

2. Gold Coral Moratorium (Action Item)

Council staff presented options for gold coral management in the Western Pacific region. The current Moratorium is set to expire in 2018 and the Council will be looking to decide on whether the moratorium should be extended, allowed to lapse, or to permanently prohibit the harvest of gold corals. If the moratorium were to lapse, the Council would need to specify an ACL for the fishery. Currently the moratorium negates the need for an ACL. Staff provided a background on the initial moratorium as well as preliminary re-calculations of MSY, noting the recalculations of MSY based on the new aging estimates would result in low quotas.

The SSC recommends extending the Gold Coral Moratorium. The extension of the moratorium would provide time for other management options, such as ACLs or a prohibition (permanent moratorium) given the vulnerability of this species, to be considered and implemented by the Council.

The SSC further recommends that, if any future commercial harvest is envisaged, further work on growth rates be undertaken as a priority to resolve the disparities between various growth rate estimates.

F. Public Comment

Lyn McNutt commented that no ACLs should be established for invasive species of fish.

Guest speaker Molly Lutcavage: Tagging of pelagic species in Hawaii

Molly Lutcavage presented on her collaboration with Kauai fishermen to tag yellowfin and bigeye tuna. She presented movement information from 18 yellowfin tagged with pop-up satellite tags. Movements showed considerable dispersion away from the Hawaiian Islands for several of the tagged yellowfin to both the N and E of release locations. No satellite tags stayed on for over 60 days, apparently due to hardware problems with tags. SSC commented on existing studies on yellowfin reproductive biology including spawning throughout the Pacific. The SSC thanked Lutcavage for her presentation and looks forward to further results from her cooperative research.

6. Pelagic Fisheries

A. Hawaii & American Samoa longline fisheries reports

Russell Ito (PIFSC) presented a summary of the Hawaiian pelagic longline fisheries, including data up to mid-2017.

The SSC noted the declining trend in albacore catches, and questioned whether there were trends in bycatch species within the fishery. Potentially increased interactions with Olive Ridley turtles in 2017 were noted. Shortbill spearfish catches were reported to be the highest of any billfish, whereas historically it was striped marlin.

Keith Bigelow (PIFSC) presented a summary of the American Samoa pelagic longline fisheries. The catch is predominantly albacore. The YFT catches and CPUE of about 5.3 fish/1000 hooks, were noted to have been higher in the first half of 2017 compared to 2016.

The SSC thanked Ito and Bigelow for their presentations.

B. American Samoa Large Vessel Prohibited Area (Action Item)

Council Staff presented the Council's consideration of a potential exemption for American Samoa longline vessels to operate within the Large Vessel Prohibited Area. Information was provided covering vessel participation in the small (alia) and large vessel classes, catch rates for South Pacific albacore, and economic conditions. Also presented was the recent court decision that vacated the 2016 LVPA exemption regulations including the need to consider the Deeds of Cession and protection of cultural fishing. Several spatial LVPA alternatives were described as well as consideration of a matrix representing a cultural fishing continuum ranging from narrow to broad characterizations. Council staff noted that the developed table describing a continuum of cultural fishing would be used to elicit public comment and discussion at the Council meeting next week.

The SSC noted that LVPA exemption alternatives 4,5, and 6 would serve to reduce regulatory barriers that may be unnecessarily impeding fishing efficiency while separating large and small vessels to reduce potential for gear conflicts and catch competition. It was noted that there are no regulations to prevent longliners from bottom

fishing on the offshore banks. When considering LVPA options, there is a need to consider gear conflicts, impacts on local markets from competition, preventing damaging gear interactions with shallow water banks and the potential issue of increased protected species interactions when closer to the shore.

With regards to cultural fishing, the SSC noted its previous recommendation which focused on how the landed catch is distributed and used for cultural reasons related to an individual's service to the aiga and matai system in support of Fa'a Samoa.

The SSC recommends that the Council consider alternatives 3, 4, 5, and 6 to address the large vessel economic situation while also preventing gear conflicts and supporting preservation of cultural fishing opportunities. The SSC recommends that adjustments to the log book and creel survey designs allow for more information to be collected such as sold and unsold proportions of the catch, noting that some of this information is being collected already in the creel survey. The SSC recommends that NMFS PIFSC socioeconomics program consider conducting surveys of American Samoa residents on the issue of cultural fishing as well as documenting fish flow from small and large vessels.

C. American Samoa Longline Permit Modifications (Action Item)

Council Staff presented on proposed modifications to the permit system in American Samoa. The Council will be taking final action at its next meeting to eliminate elements of the permit program that may be preventing new entry in the fishery as well as reducing the regulatory burden on small vessel participants. The action also includes modifications that will eliminate the restarting of the 3 year permit period without meeting minimum harvest requirements. The SSC had no objections to the proposed amendments to the permit program and recognized positive aspects of the proposed modifications.

D. Considerations for the Annual Limits on Sea Turtle Interactions in the Hawaii-based Shallow-set Longline Fishery (Action Item)

Council staff presented on the considerations for the annual limits on loggerhead and leatherback sea turtle interactions in the Hawaii shallow-set longline fishery. The Council is scheduled to take initial action on this item at its meeting next week. Staff presented on the history of the hard cap measure in the fishery, which consists of the annual interaction limits for the two sea turtle species and a mechanism to close the fishery for the remainder of the calendar year if a limit is reached. The limit is based on the Incidental Take Statement (ITS) in the Biological Opinion prepared under the Endangered Species Act (ESA). Staff also presented on the fishery performance and sea turtle interactions since 2004, as well as the spillover and transferred effects from the closure of the Hawaii shallow-set longline fishery.

SSC noted that the risk of exceeding the current hard caps for loggerhead and leatherback turtles appears low based upon the 2004-2016 time series. This may relate to these limits being based on higher historical effort levels than seen currently.

SSC noted that this is the only fishery within the US that is managed under a hard cap for ESA-listed species. The SSC noted the approach for determining the ITS is based on

historical interaction levels rather than species biology. Staff explained that the ESA consultation process is set up to determine whether the anticipated level of take in a federal action would cause jeopardy to a listed species. The ESA does not generate biological limits for interactions. **The SSC recommends option 3 to remove the hard cap measure, because the prior hard cap is arbitrary, not supported by biological data, and may have resulted in transferred effects of increased overall turtle take in the Pacific.**

SSC questioned whether there were consistent poor performers within the fishery as to higher rates of turtle interactions. It was noted the Turtle Watch (NOAA) for loggerhead turtles produced in different languages on where/when potential interactions may occur provides important information to consider in vessels potentially avoiding turtle interactions. SSC also noted that a fleet communication mechanism to notify vessels when there are higher levels of interactions may be appropriate, such as used in Alaska.

E. International Fisheries

1. Stock Assessments

Graham Pilling, The Pacific Community Oceanic Fisheries Program (SPC OFP) presented stock assessments conducted by the SPC OFP on WCPO bigeye (BET) and yellowfin (YFT), and Southwest Pacific Swordfish, and assessments by the ISC on North Pacific albacore and blue shark. Recent stock assessments on all three species of tropical tunas (SKJ, BET, and YFT) indicate that those stocks are not overfished and that overfishing is not taking place. The same conclusions were reached for North Pacific albacore and blue shark, as well as southwest Pacific swordfish. WCPFC has moved towards using depletion based biomass reference points and illustrating those outcomes using the Majuro plots, rather than the MSY based reference points commonly illustrated using the Kobe plots.

The SSC thanked Pilling for his presentation.

2. IATTC 92nd meeting

Kurt Schaefer (IATTC) presented an overview of the 92nd meeting of the IATTC, held in Mexico City in July 2017, including the important 3 year (2018-2020) tropical tuna conservation resolution that was adopted.

The SSC thanked Schaefer for his presentation.

3. WCPFC

a. Science Committee

Keith Bigelow (PIFSC) presented an overview of the WCPFC SC13 meeting held in the Cook Islands in August 2017, including information on the WCPO tuna fisheries and trends in catches.

The SSC thanked Bigelow for his presentation.

b. Intersessional Meeting on Tropical Tuna Measure

Council Staff presented on the WCPFC intersessional meeting which was held August 22-24, 2017 in Honolulu. He reviewed some of the proposals to modify the tropical tuna measure related purse seine and longline management measures including a proposal reduce the US longline bigeye limit. The outcomes of the meeting included agreement on objectives for skipjack, bigeye, and yellowfin biomass levels, but all of the provisions that would control catch and effort have yet to be agreed upon. The SPC has been tasked to evaluate the performance of various management measures on skipjack, yellowfin, and bigeye biomass and fishing mortality levels and other considerations.

The SSC notes that any proposals to reduce the WCPO US longline bigeye limit should be considered in light of improved stock status.

c. Northern Committee

Council staff reported on the 13th Northern Committee meeting held in August in Japan. NC13 agreed on an initial and secondary target reference points for North Pacific bluefin as well as catch documentation work plan. NC13 expressed concern of stock status of the NP striped marlin and urged the development of a rebuilding plan by the WCPFC and consideration of the north Pacific blue shark as a north Pacific stock.

d. Technical and Compliance Committee

Council staff reported on the 13th meeting of the WCPFC Technical and Compliance Committee, which was held September 27 to Oct. 3, 2017 in Pohnpei. He noted the compliance monitoring review process which takes up over 3 days of meeting, serving as forum to assess member compliance across a wide range of obligations. It is believed that no other tuna-RFMO is conducting a similar process that reviews compliance matters in such detail.

e. PAC issues

Council staff stated that there are no updates on the latest Permanent Advisory Committee issues except that the next meeting will be on Oct. 23 2017 in Honolulu, HI.

f. US Proposals for WCPFC 14

Council staff presented the United States' proposal to modify the tropical tuna measure. The US proposal includes provisions for flag-based purse seine effort limits and flag-based longline bigeye limits that would apply within 20 degrees N and 20 degrees S. It was noted that the US proposal also includes the provisions that would allow transferability of all catch and effort limits among members.

4. North Pacific Fisheries Commission

Council staff gave an update on the North Pacific Fisheries Commission including the implementing legislation that was passed by Congress last year. In that legislation, the Chairman of the Council or his designee is to be appointed as a US commissioner and the potential role of the SSC in the provision of advice to US commissioners to the NPFC was noted.

E. Public Comment

Lyn McNutt, Council Advisory Panel Member, noted the need for post-landing cultural studies. She recommended that Phillip Loring (University of Saskatchewan) be invited by the SSC to engage in discussions on this topic.

7. Protected Species

A. Update on the 2017 Hawaiian Islands Cetacean and Ecosystem Assessment Survey

This item was reported under the PIFSC Director's report.

B. Updates on ESA and Marine Mammal Protection Act Actions

Sarah Ellgen presented updates on ESA and MMPA actions of relevance to fishery management actions, including recovery planning for loggerhead turtles, false killer whales, monk seals and corals; ESA critical habitat for green turtles, MHI insular false killer whales and corals; responses to ESA listing petitions on oceanic whitetip shark, giant manta rays, Pacific bluefin tuna, chambered Nautilus and giant clams; MMPA approach rules on humpback whales and spinner dolphins; and False Killer Whale Take Reduction Plan (FKWTRP) implementation.

Especially noteworthy was the recent NMFS finding that no listing was warranted for the Pacific Bluefin tuna. An update on FKW interactions was also presented. There were 8 FKW interactions with longline fisheries in 2016, all in the deep-set longline fishery. There were 5 FKW interactions to date in 2017 and 4 of those occurred outside the EEZ.

The SSC thanked Ellgen for an informative presentation.

C. Public Comment

There were no public comments

8. Other Business

A. 128th SSC Meeting

The tentative date of the next SSC meeting is on March 6-8, 2018.

B. Update on Presidential Executive Orders on Monuments, Sanctuaries and Energy

Council staff reported on the ongoing review of marine national monuments and national marine sanctuaries pursuant to executive orders issued by President Trump. It was noted that Secretary Zinke issued a short report after the close of the public comment that detailed process to review the monuments, the places he visited and the number of public comments submitted. It was reported that Secretary Zinke's recommendations to President Trump were leaked to the media and include recommendations to modify the following marine monuments: Rose Atoll, Pacific Remote Islands, and Northeast Canyons. Secretary Zinke's memo did not include recommended modifications to Papahānaumokuākea monument or its expansion nor any recommended changes to the Marianas Trench marine monument.

C. Social Science Planning Committee Strategic Plan and Priorities

SSC member Craig Severance presented on the outcome of the Social Science Planning Committee (SSPC) Strategic Plan. The SSPC established a working group that met in September to review and reorganized the Strategic Plan to better meet the Council's needs. The plan was reorganized to include MSA and other statutory drivers, goals and objective to which program activities would be identified. The draft plan was reviewed and further revised in the meeting of the full committee on September 26 and 27, 2017. In

addition to finalizing the draft Strategic Plan, the Committee also updated the list and priorities of the Council's human dimensions research needs. Outcomes from these products will be used to inform the Council Cooperative Research Priorities and 5 year Program Plan.

D. Updates on the status of the SSC plan

There were no updates to the SSC plan