

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

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Joint American Samoa and Marianas Archipelago Fishery Ecosystem Plan Team Meeting

April 16 to 18, 2012 WPRFMC Conference Room Bishop St, Honolulu, Hawaii

DRAFT REPORT

CHAIR: JOHN GOURLEY (CNMI)

Plenary Presentation: "Guiding Principles for Development of Effective Fishery Monitoring Programs"

Shawn Stebbins from the Archipelago Marine Research Limited presented on the guiding principles for developing an effective fishery monitoring program. This was based on case studies and experience on Canadian fisheries. Most fisheries struggle with monitoring that is affected by several factors particularly: 1) essential information to be gathered; 2) degree of coverage; 3) quality of data expected for management; and 4) cost of conducting monitoring. Monitoring results are used for stock assessments that require a defensible and comprehensive catch accounting which equates to total mortality. Total mortality has several components: 1) landings; 2) at sea discards; and 3) gear mortality. Monitoring these three components entail different kinds of approach.

Management is about uncertainties. The level of uncertainties would depend on the reliability of the data being used for management. High accuracy of data to reflect the true stock status will result in a low risk and inversely for low accuracy information. Balancing data accuracy with management needs and resources available would require input from various stakeholders involved in the fishery and management. The guiding principle document was developed to help facilitate decision making for management in the Canadian marine fisheries. This document would be useful for the Western Pacific region as it undergo the process of improving its fishery data collection programs.

Review of the Status of the Western Pacific Insular Fisheries

Commonwealth of Northern Mariana Islands

Coral reef fisheries

Sean MacDuff provided an overview of the results of the fishery dependent monitoring in the Commonwealth of Northern Mariana Islands. CNMI implements a variety of data collection some of which are the creel surveys, commercial receipt books, net fishing exemption. CNMI also gather fishery independent data through belt transect and stationary point counts. Boat based and shore-based creel survey methodologies were described. Data collected are expanded by WPacFIN. Bottomfishing is the dominant fishing method in terms of landing on the boat based fishery. Emperor fish comprise the most dominant family probably coming mostly from the bottomfish fishery (these are non-BMUS). The time series in catch for the different family of fish seemed to be driven by fluctuations in fishery participation. The decrease in CPUE in 2011 was due to high turn-over in the fishermen (loss of expertise) and the weather has been not so favorable to the bottomfishing fishery.

The shore-based fishery showed hook and line being the dominant and have reliable estimates due to being representative in the creel survey. Snorkel spearfishing followed the most dominant method but has to be taken with a grain of salt. There was a decline in the landing in the past 2 years due to changes in immigration laws that removed majority of the hook and line fishermen that are comprised of mostly foreign nationals.

There is high variability associated with the shore based spear fishery due to low N. Other data collection method should be developed to account for this fishery. The problem is the discrepancy in the timing and logistics involved in documenting this fishery. The creel survey is not designed for a particular fishery. It was designed to capture representative fisheries within the designed sampling frame. It is better at capturing day-time fisheries.

The monitoring should be capturing the total abundance (using CPUE as a proxy) and total removal. The boat based numbers may be more reflective of the stock abundance but maybe questionable for the shorebased. The effort in coming up with an annual report may focus on the fishery that matters. Details of the fishery performance can be found in the 2012 Archipelagic Fishery Ecosystem Report (CNMI Chapter).

Bottomfish fisheries

Ray Roberto presented on the status and trends in the bottomfish fishery. Data input for fishing year 2011 is not yet complete at the time of the presentation due to late submission of the commercial receipt books by vendors. However, with the remaining invoices that needed to be inputted, DFW reckons that the FY 11 landing will be lower than FY 10.

The change in immigration caused a decline in bottomfishing in Saipan. The austerity measures had also resulted in a decrease in the number of interviews. The bottomfish permitting requirement is also causing some issues with data collection and the quality of the data that goes into the database. It was believed that the reporting requirement causes some change in the way the vendors report and was removing the name of the fishermen. The estimated landing in this fishery is somewhere around 15,000 lbs much lower than in 2010.

The voluntary nature of the commercial receipt books had caused delays in data summarization. There are still more data to be inputted. Out of the 6 main vendors, three submitted a full year worth of data. There is a bill in the legislature that will give DLNR to make data reporting mandatory. This will hopefully make the compliance in reporting more timely. Details of the fishery performance can be found in the 2012 Archipelagic Fishery Ecosystem Report (CNMI Chapter).

Crustacean and precious coral fisheries

Ray Roberto presented on the trends in the crustacean fishery. Only spiny lobster fishery exists in Saipan. There is no deep water shrimp fishery. Spiny lobsters are in high demand priced at about \$7.00 per pound. The ACLs were under estimated and should use the commercial receipt books for respecifying ACL numbers. There is no precious coral fishery existing in Saipan.

Update on Bio-Sampling Program and Spearfishing Market-flow project

John Gourley presented the status and preliminary results of the BioSampling program and the spearfishing market flow survey. The BioSampling Program generated length-weight regression values useful to inform the length-weight conversion factors for the CNMI fishery. It also produced length frequency distribution for the different species caught in the night-time spear fishery. This would be used to correct the information of the L50 campaign. The market-flow project provided information on where the fishing originated and where it is being landed. This provided the relative proportion of fish disposition in the different island areas in the Mariana Islands.

The BioSampling information has a potential in complementing the creel survey data by filling in the data gap in the night time spearfishery. There was a high level of confidence that the BioSampling covers 20% of the total catch. The Program covers 95% of the vendor in Saipan.

The Advisory Panel may provide support to the BioSampling Program to create better linkage with the vendor to which the BioSampling Program relies on for data.

Estimation of non-commercial landings

Rebecca Walker presented a summary of the estimation the non-landing in Saipan. The goal of the project is to utilize the existing creel survey data and estimate the non commercial component of the total catch. The effort from the participation counts are used to expand the catch data from the creel survey interview. The proportion of the commercial and non-commercial components came from the raw interview files. Overall results showed majority of the shore-based and boat-based fishery are non-commercial. However, on a gear level, the relative proportion of the commercial and non-commercial landing for the boat-based bottomfishing varied over the years but predominantly non-commercial in most years. The boat-based spear fishery captured by the creel survey also showed dominance of non-commercial component. This is probably due to insufficient coverage of the night time commercial spear fishery.

Administrative and regulatory updates

Andrew Torres provided an overview of the NMFS administrative and regulatory activities in the Mariana Islands. On a national level, PIRO is hosting an informal recreational working group to begin the process of working with island fishermen to identify key recreational fishing issues.

On rulemaking, several amendments are in process and have been approved: 1) Pelagic FEP Amendment 2 that prohibits purse seine fishing in the EEZ around CNMI and Guam and establish a long line prohibited area around CNMI; 2) Final rule for establishing Annual Catch Limits in the Western Pacific region; 3) approval of the MCP for Guam and CNMI; 4) interim

final rule for the U.S. purse seine vessels operating in the Western and Central Pacific Ocean (WCPO) extending the dates of applicability through December 31, 2012 for fishing effort limits, prohibition periods for using fish aggregating devices, high seas area closures, catch retention provisions, and observer coverage provisions.

On program activities, the following activities took place: 1) support fishermen in filing their application for Federal bottomfishing permits; 2) Protected Species Workshop; 3) completed the booklet "Sharks of the Mariana Archipelago".

Guam

Coral reef fisheries

Brent Tibbats presented the coral reef fishery module. The dominant fishing method on the boat based fishery is bottomfishing, SCUBA and snorkel spearfishing, gillnetting and trolling. This methods make up 90% of the total boat based landing. There was a significant decrease in the landing after 2002 due to the series of typhoon that affected the fleet, power shut down resulting in unavailability of ice and fuel. There was also a law that was passed to allow imported reef fish to supply the market and the government agencies that feeds the constituents.

The changes in the ratio of landings between the dominant fish families in the landings were brought about by the fluctuations in the activities of the different component of the coral reef fisheries. The free dive spear fishery is mostly subsistence. The changes in the landing for the gillnet time series was due to change in the gear name from gill net to purse seine or surround net after 2000. There was a spike in the surgeon fish landing was due to two interviews that had high landing which inflated the expansion. Reef sharks came up to be one of the top three species landed in the trolling fishery. These are few individuals incidentally caught and kept. Despite few individuals landed the weight of individual sharks came up to be significant.

The shore-based fishery is characterized by dominance of hook-and-line fishing. There was a significantly high goat fish run in 2011 in the talaya fishery. There was a significant increase in catch but no corresponding increase in CPUE which could be explained by a decrease in the level of effort with high amount of goat fish available in the fishery. Details of the fishery performance can be found in the 2012 Archipelagic Fishery Ecosystem Report (Guam Chapter).

Bottomfish fisheries

Thomas Flores presented the trends and status of the bottomfish fishery in Guam. The biggest change in species composition was the landing ratio of onaga and ehu. The best CPUE for the boat based bottom fishery is the non chartered sector. The increase in 2011 landing was due to pulse fishery of jacks. The harvest of BMUS ad been doubles due to the shorebased harvest but the biggest component is the boat based non charter boats. Comparison between the total bottomfish versus commercial harvest, the commercial harvest is 12% of the total harvest from creel surveys. The effort had dropped by 30% for bottomfishing, and 31% for trips. The average bottomfish prices increases slightly but drops when adjusted for inflation. The CPUE had doubled for 2011. If you segregate the deep and shallow bottomfish it follows the same trend. The non charter CPUE dictates the CPUE trend. The revenue increased slightly at 3% for BMUS only and all BF.

The spike in the 2011 jacks landing was attributed to the pulse fishery.

The military activity does not seem to drive in the decrease in bottomfishing in Guam. The decrease was more attributed to increase in fuel prices and reduced catch rates deters further fishing in distant fishing grounds. Details of the fishery performance can be found in the 2012 Archipelagic Fishery Ecosystem Report (Guam Chapter).

Crustacean fisheries

Thomas Flores presented on the status of the crustacean fishery. This fishery targets mostly spiny lobsters. Spiny lobsters are mostly encountered in the shore based spear fishery. The creel surveys are not capturing a lot of the lobster fishery. There was an increase in the landings in spiny and other crabs.

Precious corals fishery and coral reef habitat status

Jay Gutierrez presented via the conference call line on the status of the coral reef habitat in Guam. The average live coral cover in Guam is around 25%. This was half of the previous live coral cover. There are spatial differences in love coral cover around the island of Guam. Several factors were affecting the coral reef habitat in Guam particularly, coral disease, coral bleaching, sedimentation, run-off and associated pollutants, recreational mis-use and overuse, crown-of-thorn outbreaks,

Update on Bio-Sampling Program data summary

The Guam BioSampling updates were covered by Kimberly Lowe. Issues affecting BioSampling: 1) No mandatory reporting; 2) BioSampling staff spent less time doing biosampling due to other obligations; 3) local politics limits data access. Species composition in the BioSampling is dominated by surgeon followed by parrotfish. In October 2011 the goat fish and mullets were part of the top species no longer a major part of the catch in March 2012.

Estimation of non-commercial landings

Rebecca Walker presented a summary of the estimation the non-landing in Guam. The goal of the project is to utilize the existing creel survey data and estimate the non commercial component of the total catch. The effort from the participation counts are used to expand the catch data from the creel survey interview. The proportion of the commercial and non-commercial components came from the raw interview files. Non commercial landing dominate the shore based fishery combined. Top non commercial landed surgeon mollusk and parrotfish. The boat based SCUBA spear had a significant portion as non commercial. Bottomfishing and snorkel spearfishing appeared to be predominantly non-commercial while the boat-based spearfishing is mostly commercial from 1995-2008. Non commercial CREMUS landings are composed of atulai, emperor, and surgeonfish.

The algorithm written to this database does not perfectly capture the issues described. There may be some compounding factors during the catch interview where fishermen are not being entirely honest in declaring the total amount being sold.

American Samoa

Coral reef and crustacean fisheries

Benjamin Carroll presented the trends in the coral reef and crustacean fisheries in American Samoa. The main trends in the fishery had been driven by effort over the past 25 years. The change in catches was primarily due to the change in effort. The main factors contributing to the change in effort were brought about by impacts of hurricane, emergence and subsequent ban of the use of SCUBA in the spearfishery, and socio-economic changes within the Territory. The socio-economic change resulted in a decrease in fishery participation because most people opt not to derive their protein source directly from the sea but rather through paid employment allowing them to shop for food and import fish from the neighboring islands. All these occur despite the massive increase in human population thereby dissociating fishing effort trends to the demand for fish since the demand is being supplied by imports and alternative food source. More recently, however, there has been an increase in bottomfishing and spearfishing in the boat-based fishery.

Overall, the shore-based fisheries remain at very low levels. Catches from the boat-based had decreased to very low levels after the SCUBA-spearfishing ban and recently showed a gradual steady increase. The overall increase in the boat-based fishery landing comes predominantly from increases in: 1) effort in the bottomfish fishery; 2) possible highly significant increase in effort in 2010 from spearfishing. Ignoring the outlier data point still showed an increase in recent effort and catch. Details of the fishery performance can be found in the 2012 Archipelagic Fishery Ecosystem Report (American Samoa Chapter).

Bottomfish fisheries

Nonu TuiSamoa provided a very brief overview of the bottomfish fishery performance. The fishery showed an increase in fishing effort and catch from the 2010 level. There was a significant decrease from 2009 to 2010 possibly brought about by the decrease in fishery participants due to the September 29, 2009 tsunami devastating most of the fishing fleet.

There is a disconnect in the information flow from data collection to feedback to the fishermen on the information that was gathered. Incentives may be great but transparency is more important in order to gain trust between the agencies and the stakeholders. Details of the fishery performance can be found in the 2012 Archipelagic Fishery Ecosystem Report (American Samoa Chapter).

Precious corals fishery and coral reef habitat status

Douglas Fenner provided an overview of the habitat status of American Samoa coral reefs. Live coral cover averages about 30% on the reef slopes. This can be considered as average around the Pacific Islands. Over time, it appears that live coral cover has been increasing. Dead coral cover is considered minimum. Unique to American Samoa is the high coralline algae cover which is considered an indicator of a healthy reef system. This minimizes the proliferation of macroalgae. Macroalgal bloom occurs in villages that has poor water quality and have high nutrient inputs from the stream. There were some indication of hurricane and tsunami damage but these were considered minor and the reef is resilient enough to undergo quick recovery.

There is currently no precious coral fishery in American Samoa. Habitats for precious corals have not been mapped extensively.

Update on Bio-Sampling Program data summary

Domingo Ochavillo presented on the updates and partial results from the American Samoa BioSampling Program. There had been several milestone in the BioSampling Program administered through DMWR. DMWR now have 7 staff trained in species level fish identification. The team is working with 10 spearfishermen, 4 bottomfishing boats, and 2 handlining fishers. To date 34,000 fish had been measured for length weight measurements. The program had collected 1200 otoliths and gonad samples from 10 fish species for life-history analysis and 100 fin clips for the Bar Code of Life Project. The program was also able to generate area specific CPUE and fishery demographics for each type of fishery. Major fishing areas had been mapped from the catch interviews. Frequency distribution analysis showed important fishing grounds for various reef fish species.

Data from the Biosampling could also support stock assessment by providing important life history information specifically: 1) mean length; 2) intrinsic growth rates; 3) maximum age; 4) maximum length and L infinity from which one can derive; 5 natural and total mortalities

The Plan Team recognizes the significance of the information being generated by the BioSampling Program to potentially augment gaps on the current creel surveys. The Plan Team recommends the Council request NMFS to provide adequate funding for the continuation of the BioSampling Program. The information from the frequency distribution analysis can be converted to maps using GIS to visually describe important fishing grounds for spatial management.

Non-stock related factors affecting CPUE in the coral reef fisheries

Domingo Ochavillo presented the results of the multivariate analysis relative to the CPUE trends of the nearshore fishery in American Samoa. The decline in catch-per-unit effort has always been associated with decline in fish stocks. In fact, decline in CPUE has always been an 'overfishing' indicator. In reality, CPUE reflects a more complicated picture. It reflects the variability of fishing skills among fishermen and most probably changes in fish behavior. In this report, we have pointed to some 'tenuous' evidence of negative impact of natural disturbances on coral reef fishery. On the other hand, there are some indications that the same disturbances have impacted the bottomfishing fishery so there is some inverse relationship. The impact of severe natural disturbances on coral reef fisheries has always not been clearly shown and will be difficult to show due to their timing and the background variability of processes affecting natural populations. However, this does not mean that they are not important factors. In contrast, the impact of these disturbances should be studied as they have implications on what can be said of the status of exploited stocks

Estimation of non-commercial landings

Rebecca Walker presented a summary of the estimation the non-landing in American Samoa. The goal of the project is to utilize the existing creel survey data and estimate the non commercial component of the total catch. The effort from the participation counts are used to expand the catch data from the creel survey interview. The proportion of the commercial and non-commercial components came from the raw interview files. Overall results showed majority of the shore-based fisheries are non-commercial. However, for the boat based fishery it is predominantly commercial particularly the bottomfishing and spearfishing. A copy of the report is available at the Council.

Administrative and regulatory updates

Adam Bailey presented on the different administrative and regulatory activities of NMFS affecting American Samoa. Regarding rule making, an amendment was submitted to NMFS regarding the process of specifying ACLs for the different MUS in the American Samoa FEP. This was subsequently approved by NMFS and the Council preceded with the specification of annual catch limits and the specification document was submitted to NMFS prior to the end of 2011. ACL proposed rule was released for comments on January 2012 and final rule came out February 2012. Amendment 3 to the pelagic FEP was released in 2011 that aims to increase the prohibited areas for purse seine fishing in American Samoa from 50nm to 75 nm from shore. The amendment was disapproved by the Secretary of Commerce on the basis of non-alignment with the conservation and management objectives of the National Standards guidelines. The proposed rule was subsequently retracted. Amendment 5 to the Pelagic FEP requires specific gear configuration for pelagic longline fishing south of the equator to reduce turtle interaction. The rule is effective on September 2011.

Regarding program activities, PIRO in assistance of DMWR, Council and PIFSC had compiled information for evaluating whether a commercial fishery failure had occurred in American Samoa from the 2009 tsunami. The Secretary declared that a fishery disaster had occurred and warrants releases of disaster relief to eligible stakeholders. This would depend on Congressional appropriation of funds. NMFS also announced the availability of four Class A permits and three Class B permits in the American Samoa longline fishery. Five applications for Class B permits were received. PIRO also sent a reminder to the AS permit holders whose permits will expire by the end of 2011. Several permit holders transferred permits to Hawaii longline permit holders increasing the total of dual-permitted vessels to 18.

Improving ACL specifications

<u>Surplus production model using biomass, catch, and natural mortality estimates</u> Paul Dalzell presented on the new analysis using biomass estimates from CRED, catch estimates from creel surveys and an estimate of natural mortality to generate an estimate of MSY for respecifying ACLs. This approach was discussed during the ACL workshop in December 2011. This could be an alternative to the Tier 5 control rule using catch only information. This methodology provides a better estimate of stock status than the 75th percentile. If the Council moves forward with this approach, then the ABC control rule to be used will be the higher tier since a MSY estimates are established.

Use of other data sources (e.g. commercial receipt book, BioSampling)

Marlowe Sabater presented the results of the analysis of the commercial receipt books from American Samoa, Guam, and CNMI using the same metrics applied to the creel surveys generating the ABCs and ACLs for the coral reef fisheries. There were some improvements in the ABCs and ACLs using from the receipt book data particularly those reef fish families from fishing methods that are not adequately covered by the creel surveys. These new estimates can be used to respecify better ACLs.

Regarding Annual Catch Limits, the plan team recommends the Council:

- 1. Immediately pursue the ecosystem component (EC) option for fisheries that do not occur in federal waters and work in collaboration with NMFS and the FEP Plan Teams to evaluate the management unit species of each FEP that may be eligible for ecosystem component classification. The classification of ecosystem component species for each FEP area should be implemented prior to the start of the 2014 fishing year to be pertinent to ACL re-specification. EC species remain in the FEP for data collection purposes and ecosystem considerations.
- 2. Work in collaboration with NMFS and the FEP Plan Teams to consider supplemental data (e.g. commercial receipt books and BioSampling) and other analytical methods (e.g. Garcia et al. 1989, NMFS-Council Workshop Report December 2011) to improve on the ACL specifications for species/groups that are not designated as ecosystem components. Since the current ACLs are specified for the 2012 and 2013 fishing years, any improved or revised ACL specifications can be implemented for the 2014 fishing year.

Regarding fishery data collection, the Plan Team recommends NMFS and Council support the local fishery management agencies in American Samoa, Guam and CNMI to develop an incentive program for fishermen and vendors to enhance their participation in the data collection programs. The Plan Team further recommends NMFS and Council support the local fishery management agencies in bringing the fishery information back to the stakeholders via education and outreach.

Format and information needs for the Annual Report Modules

The Chair and Marlowe Sabater facilitated the open discussion on the format and information needs for the annual report modules. Clarifications were made on the need of the annual report and the process by which the report is to be completed. The annual report should serve several purposes and provide information for the following purposes:

- 1. Local fishery management needs a report on the status of the territorial stocks;
- 2. Council needs a report to comply with the reporting requirements described in the FEP
- 3. Stock assessment needs standardized data that describe total removal and harvest rates and stock abundance using CPUE as abundance proxies
- 4. SAFE reports a source document for NEPA analysis

This will maximize the utility of the annual report. This would also support the NMFS-Council initiative to develop a "living FEP document"

Regarding the Annual Report Modules, the Plan Team recommends Council, in collaboration with PIFSC and Plan Team Members, to make the following changes in the modules:

- 1. Add a section in the module that describes the meta-data (diagnostic statistics) pertaining to the fishery statistic presented in the report;
- 2. Limit the detailed catch and CPUE figures to the major fisheries while the minor fisheries will described briefly and the information will be presented as tables in the appendix;
- 3. All catch time series charts be converted to component line charts and add a 7th category that includes all other species caught by that method;

- 4. Insert an overall fishery summary that includes total catches for the ACL species categories pooled between all methods;
- 5. Combine nominal and inflation adjusted prices of the major fisheries into one graph;
- 6. Remove the Coral Reef Fishery heading and add the bottomfish (BMUS) fishery in the general boat based fishery

Evaluation of data collection programs in the Western Pacific

Sunny Bak presented the summary of the evaluation of the data collection program in the Western Pacific. This evaluation covers the creel survey data collection in American Samoa, Guam and CNMI. The aim of the evaluation was to determine the applicability of the data being generated by the creel surveys for ACL-based management. Areas of evaluation ranged from survey design, implementation and data expansion. This report also covered the documentation of the expansion algorithm. The full report is available from the Council.

Improving fishery data collections and status reporting

Summary of the Fishery Data Collection Improvement Workshop

Marlowe Sabater presented the outcome of the December 2011 Fishery Data Collection Improvement Workshop. This workshop aimed to indentify and prioritize data collection issues and gaps that affect data quality and quantity. There were several issues that are common across jurisdiction. Solutions and steps were identified for each prioritized issues and gap. Timeframe and cost associated with the solutions were estimated. The full workshop report is available at the Council.

Update on Status of Fishery Data Collection Improvement Actions

Representatives from DMWR, DAWR and DFW provided the Plan Team with updates on the improvements to their data collection as part of their commitments expressed during the December 2011 workshop.

American Samoa: Three shifts have been initiated in the shore-based survey in American Samoa. An approach based on the BioSampling experience will be adopted by the Shore-Based survey. The BioSampling enhanced the fisherman volunteerism to provide data to the BioSampling staff.

Guam: Briefing meeting with the military to gain access to the military facility. BioSampling helped in filling in the gap in the night time spear fishery. The funding decreased for the SFR. The budget reduction will not affect the the near-shore and boat based data collection but will affect the minor project.

CNMI: Expanding the creel survey to other area of Saipan and the island of Rota. CNMI is currently in the process of making the commercial dealer report mandatory through a local legislation. DFW is waiting for the legislation to pass into law. DFW is also hiring of additional biologist to deal with fishery issues.

The use of the length weight conversion factors from BioSampling can be used to recalculate the weights from the creel survey. The calibrated weights can be applied to the entire catch time series. Programming codes should be developed to incorporate the new a and b values in the

expansion system. Use all length-weight data to recalibrate the generated weights from length measurements. The question on whether to utilize the new a and b values applied retroactively to the time series or just this point forward.

The Plan Team recommended Council request PIFSC WPacFIN conduct a pilot study to test the potential effect of the new a and b values from the BioSampling program and creel surveys and determine if there are changes in the temporal trend in the catch time series.

Data collection in military installations in Guam

Marlowe Sabater provided an overview of the recent meeting of the Council with the military Environmental Division in Guam regarding possible fishery data collection in military installations. The biologists in the division expressed interest in conducting fishery monitoring in their area. The next step is to plan for a joint workshop to discuss the details of the data collection program.

Status of the territorial bottomfish assessment

Gerard DiNardo presented the status of the territorial bottomfish stock assessment. The assessment will just be an update with additional sections that will include a risk table similar to the Main Hawaiian Deep 7 Bottomfish to determine risk of overfishing. The assessment will still be done on the deep and shallow complex comprised of snapper, grouper, emperor and jack species. Initial results showed stock complex is not overfished and did not experience overfishing in any of the territories.

WPRFMC Five Year Research Priorities

Marlowe Sabater provided an overview of the five year research priorities which is the basis for the determination of the Cooperative Research Priorities for the Western Pacific region. Chris Boggs suggested some changes in the formatting of the document (need to number the 5 year research priorities). The research priorities should be vetted to the SSC and review the document if it was sufficiently addressed. PIFSC will review via Chris Boggs.

Development and Review of Cooperative Research Priorities and Projects

Marlowe Sabater provided an overview of the current Cooperative Research priorities for American Samoa and the Mariana Islands. No additional priorities were added for the American Samoa priorities. The Plan Team recommended the Council adopt the updated Cooperative Research priorities to include "Improving catch by fishing location information and ground truthing interview information through advanced technology"

Essential Fish Habitat/Habitat Area of Particular Concern

Territory bottomfish, coral reef, pelagic, and precious corals

Danielle Jayewardene presented the management recommendations for the territorial bottomfish, coral reef, pelagic and precious coral essential fish habitat and habitat area of particular concern. The management recommendations were based on the science review of PIFSC. The bottomfish EFH/HAPC was revised to separating the egg/larvae EFH/HAPC from the adult and creation of the intermediate depth consistent with the Hawaii. The coral reef EFH/HAPC created some issues with the criteria mostly focused on MPAs. Some of the MPAs in the Marianas were

created without fish-habitat consideration thus cannot be used as a proxy for the EFH/HAPC. There is no change in the pelagic and precious coral EFH/HAPC due to lack of additional information.

The Plan Team recommends that its members conduct a critical review of the coral reef section of the EFH and HAPC science and management recommendation document and provide comments to the Council on or before May 30, 2012.

Coral reef EFH Project

Daniel Luck presented the results of the HPU Coral Reef EFH Project. Life history, specieshabitat information, and habitat maps derived from IKONOS images were used to specify EFH for some coral reef species. GIS was used to narrow down the EFH designation for a particular species. The EFH designation area was reduced significantly using this method. The full report is available at the Council.

Protected Species

Biological report on 82 species corals

Lance Smith presented an overview of the status of the 82 species of coral petition. PIRO staff announced the availability of the biological review team report and management report for public review and additional information. The comments are due on July 31, 2012.

The Plan Team recommends that its members conduct a critical review of the coral BRT status review report document and management review report provide comments to the Council on or before July 31, 2012

Other Business

The Joint Plan Team discussed the utility of having a joint meeting of the plan teams from American Samoa and Mariana islands. Keeping Hawaii separate allows the team to focus on the territorial fisheries that have a lot of commonality in terms of issues and fishery characteristics. The interaction between PIFSC and the plan team members was deemed useful in terms of the interpretation of the data and issues related to data collection.

Regarding the Plan Team meeting format, the Plan Team recommends the Council continue to hold regular Joint FEP Plan Team meeting recognizing that this provides a productive venue for discussing fishery issues.