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## **Hawaii Archipelago FEP Plan Team Meeting Report**

April 12-13, 2011

9:00 a.m. – 5:00 p.m.

Council Conference Room

1164 Bishop Street Suite 1400

Honolulu, Hawaii

### **1. Introductions**

Mark Mitsuyasu provided an overview of the changes in the Plan Team process. Mark described the reporting requirements and emphasized the need to address the gaps in the data collection.

### **2. Status of fishery monitoring programs and research projects**

#### **A. Coral Reef Fisheries**

Alton Miyasaka from the Hawaii Division of Aquatic Resources provided an overview of the planned changes in the coral reef fishery regulations on some species of goatfish, parrotfish and jacks. The Hawaii Division of Aquatic Resources is planning to change the size and bag limits for the commercial and non-commercial fishery for species of goatfish, parrotfish and jacks and establish a seasonal closure for goatfish in the commercial fishery. This was due to the declines in the catch rates from 2002 to 2010 in some species. The specific regulations varied between counties. The plan team recognized that this is a good step forward towards conserving the nearshore resources. There might be a need to enhance the outreach due to the confusing nature of the drafted regulations due to differences between commercial and non-commercial and differences between counties. There was a point raised that some of the species were included with catch rates not declining but due to the multispecies nature of the fishery it was included in the regulatory changes for simplicity and ease of enforcement.

#### **B. Crustacean Fisheries**

Jo-Anne Kushima from the Hawaii Division of Aquatic Resources presented an update on the status of the crustacean fishery particularly on the catch and effort trends for spiny lobster and kona crab. The catches of spiny lobster and kona crab in recent years are much lower than in the early 2000. There was a consistent spike in the catch landing prior to the fishing closure indicative of a race to the last crustacean scenario. Majority of the spiny lobsters are landed in Maui brought about by market demands. Kona crabs are predominantly landed in Oahu. It was recommended to parse out the catch landing of *Panulirus penicillatus* from the endemic *Panulirus marginatus* so as not to mask the status of the local and more vulnerable lobsters.

### **C. Precious Coral Fisheries**

Dr. Frank Parrish and Kurt Kuwamoto from the Pacific Island Science Center presented the status of the precious coral population and fishery. The fishery is currently inactive and participation is down to a handful of fishermen. The status of the population appeared to be stable and the fishery was to be limited to the shallow population only since the deeper population is harder to access and the sizes are smaller. No funds are available to conduct regular monitoring. Several researches were conducted to determine the spatial distribution and genetic characterizations of the precious coral population.

### **D. PIRO Administrative Activities**

Toby Wood from the Pacific Island Regional Office provided an update on the status of the different administrative activities related to ESA reviews, amendment documents, EIA applications to some fishery development. For rule making, the updates are as follows:

- 1) In August 2010, the Secretary of Commerce (Secretary) approved Amendment 1 to the fishery ecosystem plans (FEP) for American Samoa, Hawaii, the Marianas, and western Pacific pelagic fisheries, establishing requirements and procedures for community development plans (CDP). NMFS announced on November 5, 2010, that OMB had approved the collection of information requirements (75 FR 68199), and the requirements were effective December 6, 2010.
- 2) On September 1, 2010, NMFS specified a main Hawaiian Islands (MHI) Deep 7 bottomfish total allowable catch (TAC) limit of 254,050 lb (115,235 kg) for the 2010-11 fishing year, as recommended by the Western Pacific Fishery Management Council based on the best available scientific, commercial and other information and taking into account the associated risk of overfishing (75 FR 53606).
- 3) On October 29, 2010, the Secretary approved Amendment 2 to the Hawaii FEP, intended to rebuild overfished armorhead at Hancock Seamounts. On November 10, 2010, NMFS published a final rule implementing Amendment 2 (75 FR 69015)
- 4) On January 26, 2011, NMFS announced that the annual harvest guideline for the commercial lobster fishery in the Northwestern Hawaiian Islands is zero lobsters for calendar year 2011 (76 FR 4551).
- 5) On February 14, 2011, NMFS published a proposed rule that would change the advance notification period for in-season closure of the MHI Deep-7 bottomfish fishery from 14 to 7 days (76 FR 8330). The final rule (76 FR 15222) was published on March 21, and will become effective April 20, 2011.
- 6) On February 25, 2011, NMFS published an advisement (76 FR 10524) that the coh
- 7) Commercial and non-commercial fisheries for MHI Deep 7 bottomfish would be closed effective on March 12, 2011.
- 8) Secretarial review has begun for amendments to establish, in each FEP, a mechanism for specifying annual catch limits (ACL) so that overfishing does not occur and

accountability measures (AM) to prevent ACLs from being exceeded, and correct or mitigate overages of an ACL should it occur.

Mr. Wood also provided updates on protected resources:

- 1) False killer whale take reduction plan
- 2) Petition for listing of the insular stock of false killer whales
- 3) Petition for listing of 82 coral species
- 4) Petition for listing of bumhead parrotfish
- 5) Revision of Hawaiian monk seal critical habitat
- 6) Sea turtle recovery program

## **E. Bottomfish Fisheries**

### **i. MHI TAC monitoring**

David Hamm from the Pacific Island Fishery Science Center provided a post mortem update on the Main Hawaiian Island bottomfish TAC monitoring. The TAC has been reached and the fishery closed in April. There was concern on the unreported catches that affects the ability to project the TAC. The unreported catches were about 9000 pounds.

### **ii. Market/economic report**

Justin Hospital from the Pacific Island Fishery Science Center provided a summary of the economic performance monitoring of the bottomfish fishery comparing 2009 and 2010 including a comparison of the recent against the pre-TAC metrics. During the fishing year 2010, 208,412 lbs was landed less than the TAC of 254,050 lbs by 18% whereas in 2011, it hit beyond the TAC at 257,000 lbs closing the fishery on March 12, 2011 with a total of only 192 fishing days. The market supply had significantly decreased with the closing of the NWHI bottomfish fishery. This was supplemented by snapper and grouper imports. A close look at the market dynamics, there was an overall decrease in the landing of BMUS and deep 7 from the MHI and totals with a concurrent increase in imports by 16% from the previous years. The economic performance in terms of prices showed positive signs where the price of total bottomfish, deep 7 and imports had increased compared to the previous years. However, in terms of revenue, there was a decrease in the total bottomfish and deep 7 when the prices were adjusted for inflation.

### **iii. PIRO report on TAC and ACL process update**

Jarad Makaiau from the Pacific Island Regional Office presented an update to the MHI deep 7 TAC. Fishery opened September 1, 2010 with a specified TAC of 254,050 lb (74 FR 48422) which was the same as 2009-10 fishing year. This was developed by the 99th SSC representing the 25th percentile of the median catch for the years 1982-2007. Based on 2009 NMFS stock assessment risk analysis update, this TAC was associated with a risk of overfishing between 39-44 percent. On February 17, 2011, the Bottomfish Principles met to review the catch

performance of the fishery. Based on actual catch data through February 17, and estimated catch projections based on average monthly catch ('05-09), and the recommendation of the Bottomfish Advisory Review Board, the Principles determined the TAC would be reached on March 12, 2011.

On February 25, 2011, NMFS published an advisement (76 FR 10524) that the fishery will close on March 12, 2011. The advisement provided fishermen with 14 days advanced notification of fishery closure. Notifications were also sent by mail to all fishery participants advising of the March 12 closure date. As of April 8, 2011 the actual MHI Deep 7 bottomfish landings is 266,313 lbs. This is 12,363 lb or 4.8 percent greater than the specified TAC of 254,050 lb. More reports are expected to be submitted through April 10 which will likely increase actual landings.

Makaiau also presented an update to the MHI deep 7 ACL process. The Council submitted an ACL Omnibus Amendment. The status of which are as follows:

March 10, 2011: ACL omnibus amendment transmitted for Secretarial Review.

March 31, 2011: Proposed rule published.

May 16, 2011: Deadline for comments on the amendment and proposed rule.

June 15, 2011: Final Rule expected:

Makaiau provided the Plan Team with the background and concept of ACLs and the process by which the catch limit will transition from TAC to ACLs. A P-star and SEEM working group was formed as per recommendation by the Council in the 149<sup>th</sup> meeting, to guide the Council in choosing the acceptable risk of overfishing to determine the ABC and the sociological and management uncertainties from which the ABC will be lowered to set the ACLs. Preliminary results of the P\* Working Group, based on assessment information, assessment uncertainty, stock status, productivity and susceptibility, the  $P^* = 41.5$ , but subject to another meeting.

#### **iv. Recreational permit and reporting**

Walter Ikehara from the Pacific Island Regional Office presented an update on the permitting and reporting requirements for the non-commercial bottomfish fishery. The following are the permit requirements:

- Required for any person fishing from a vessel in MHI EEZ for BMUS
- Vessel owners also required to have permit
- Each applicant issued a plastic permit card good for one year from date of issuance
- Annually renewable
- Application fee \$41 in January 2011

Once permitted, the following reporting requirements are to be followed:

- Federal logbook provided to each permit holder who is a vessel owner
- Vessel operator must record information on the trip logsheet within 24 hours after end of each day's fishing
- Vessel operator or owner must submit completed logsheets to NMFS (PIFSC) within 72 hours after the end of the trip
- PIFSC has an online reporting system for fishermen

PIRO also conducted several outreach activities to increase compliance. PIRO participated in public informational workshops with PIFSC, Council, and PIFG statewide in 2008, and in later workshops when feasible. PIRO also participated in Fishers Forums at Council meetings and the annual Hawaii Seafood and Fishing Festivals at Pier 38. Brochures were designed, printed and provided to NOAA OLE, HDAR, DBOR, DOCARE, and Council for distribution

Monitoring of the permit issuance and renewal showed a continual decrease over time. There was also a decrease in the submission of catch reports. The following was seen as reasons for the decrease in the permit application:

- Some former permit holders obtained Hawaii Commercial Marine Licenses
- Prospective permit holders obtained Hawaii CML instead
- Fishermen claimed to fish only in State waters, hence permit not required
- Fishermen not aware of requirement
- Reality Check: Maybe there are a lot fewer non-commercial bottomfishermen than we thought?

### **3. Hawaii archipelago FEP draft annual report structure**

Marlowe Sabater, Council staff, presented an overview of the annual report structure for the Hawaii archipelago FEP. The main aim of this report is evaluate the status of the coral reef stock and fishery performance as well as track the progress of the various activities and projects related to coral reefs. There were some difficulties in finding common grounds of who will participate in the report writing on a volunteer basis. The recommendation was that the heads of each agency assign a staff that will assist the Council in drafting sections of the report.

## **4. Improving fishery data collection and research**

### **A. Update on recommendations from 2009 Fishery Data Workshop**

Josh DeMello, Council staff, presented an update on the recommendations raised during the 2009 Fishery Data Workshop. There were no discussions since majority and essential PT members had already left.

### **B. MSA Five-Year priorities**

No further discussion and presentation was made on this topic since majority and essential PT members had already left.

### **C. Review of Cooperative Research**

No further discussion and presentation was made on this topic since majority and essential PT members had already left.

### **D. Review of PT risk ranking results for stock assessment and ACLs**

This section was discussed the following day during the drafting of the recommendations. Council staff raised the issue that this list is not representative of the HDAR view on which species should be listed in the risk ranked species. The list was only made for convenience since a proxy MSY already existed. Aside from side commentaries the group deferred the decision to HDAR staff to discuss amongst themselves on what species to list out. It was noted that the current list is already covered by the current species level analysis of the top 90% of the coral reef fish catch.

### **5. Other business**

Discussion was postponed for the following day due to a decrease in the number of participants.

### **6. Public comments**

There were no public comments on the day 1 agenda.

### **7. Discussion and recommendations**

The discussion and recommendation session was moved to the following day due to significant reduction in presence of Plan team members.

### **8. National Fisheries Mandates and Issues**

#### **A. Coastal and Marine Spatial Planning (CMSP)**

##### **i. Overview of CMSP**

Roy Morioka presented an overview of what Coastal and Marine Spatial Planning (CMSP) is and what is happening now. He noted that CMSP was established by President Obama and focused on the nine priority objectives of the National effort. He also said that CMSP is a planning process and it has a lot of energy behind it because it comes from the President, and we are waiting to see what our role will be in CMSP. Morioka said that the key to CMSP is that it is imperative for fishing communities to keep informed and participate in regional planning bodies, the development of CMSP policies, and regional CMSP plans. There is a deadline of April 29, 2011 for comments on the nine priorities.

##### **ii. Community CMSP Workshop**

Sylvia Spalding, Council staff, presented on the Council's work in the community to inform them of the President's CMSP initiative. She noted that the Council had CMSP as its theme for the last Fishers Forum at Aloha Tower as well as part of an International Fishers Forum in Taiwan. She also noted that there is going to be a national workshop to present CMSP to different stakeholder groups and that CMSP is not a new idea and the Councils have been working on CMSP since they were created. Spalding noted that the Council would like to train the fishing community on CMSP so that they are informed about the process before it is brought to Hawaii. She noted that the Council is planning to hold a workshop in the first week of August for this training to include Hawaii, Guam, and CNMI community members to learn about the tools of CMSP and to get involved at the community level. This workshop will also be held concurrently with a workshop on climate change.

### **B. Update on Annual Catch Limits**

Sarah Pautzke, Council staff, provided a background and overview on the need for ACLs and an update on where the Council is in finalizing the process for establishment of ACLs. She provided a difference between ACLs and TACs and went over an example of how ACLs would be set and issues with ACLs facing the Council.

### **C. Report on ACL and Catch Share Workshops**

Moriokoa provided the PT and AP with the results of workshops that started in early 2010 and continued to 2011 regarding the establishment of ACLs and Catch Shares. He said that he has been meeting with different groups, including fishing clubs, Council advisory groups, and community meetings. He said that he has hammered on the need for complete data from fishermen to provide accurate ACLs and Catch Shares. He noted some of the results of the workshop were that fishermen said that catch shares are unnecessary for Hawaii, kill small business, and that open access is best. Other issues brought up in the community included non-commercial data collection and marine spatial planning. Morioka said the results of these workshops are that the participation and involvement of the community in these issues is growing and that people are beginning to understand the issues at hand.

The PT and AP discussed the impending mandate of ACLs, in particular, what ACLs mean in relation to the Total Allowable Catch (TAC) strategy being employed for the bottomfish fishery. They asked if an ACL developed for the fishery would override a Council recommended TAC? Pautzke replied that the TAC was put in place by the Council as a stop-gap measure, should the ACL process not be in place before the opening of the 2011-2012 bottomfish season. She also said that if the ACL amendment isn't approved, the ACL will not be put in place. The AP was also concerned the ACL would be for the entire deep-seven complex and not by species. Mitsuyasu explained that the stock assessment is based on the complex and not individual species, although that is the ultimate goal. The PT and AP also discussed how an ACL for the Main Hawaiian Islands bottomfish fishery should be developed, taking into consideration the

State's implementation of trip reporting. They recommended that the Council establish the ACL equal to the Allowable Biological Catch (ABC) at their recommended TAC. Then, establish an Annual Catch Target (ACT) that is a reduction from the ACL through the SEEM analyses and management uncertainty processes that is no lower than a 40% probability of overfishing.

The AP raised problems with reporting and having a check and balance system for recreational fishing data. They agreed that data collection does cause more problems but that there is a need for fishermen to provide good data because the ACL process has too much room for error. The AP said that fishermen are penalized too much and that to make sure that they aren't continually punished, they need to provide timely and accurate data.

The PT asked how an ACL for the Main Hawaiian Islands bottomfish fishery should be developed, taking into consideration the State's implementation of trip reporting. Since this first year was a trial of the new reporting system and enforcement wasn't going to be strict, the PT suggested that the data collected wouldn't provide that immediate accuracy that it was intended to do so the Council should set an ACL close to their recommended TAC. They recommended that the Council establish the ACL equal to the Allowable Biological Catch (ABC) at their recommended TAC. Then, establish an Annual Catch Target (ACT) that is a reduction from the ACL through the SEEM analyses and management uncertainty processes that is no lower than a 40% probability of overfishing.

## **9. Upcoming Fishery Management Actions**

### **A. Options for Non-Commercial Fishery Data Reporting**

Joshua DeMello, Council Staff, presented options for reporting fishery data from the non-commercial fisheries. He provided a background and the purpose for looking at the options and a suite of options available to the group to recommend to the Council.

The PT and AP discussed the options and agreed that the simplest option for reporting is the best solution for non-commercial fishermen. They also discussed the jurisdictional issues in regards to data collection (fished in/caught in state waters vs Federal waters) and agreed that reporting should be tied to the vessel and should include a "did not fish" report as a condition of being part of the fishery. "Zero" catch reports were also identified as a need for non-commercial fishermen as well. The AP also discussed the need to provide non-commercial fishermen with something in return for providing their data. There was a question whether the Federal government provide resources for a State recreational data collection program. Council staff said that the Council tried to do it just like they did for the Commercial Marine License, and may also consider pre-emption as an alternative.



The PT and AP discussed these options in terms of the MHI bottomfish fishery and agreed that State of Hawaii should be using its BF registry as data collection instrument and should be mandating that all non-commercial registry participants provide catch and effort data (including a did not fish or zero catch report).

### **B. Hawaiian Archipelago Bottomfish EFH and HAPC review**

Al Everson, PIRO Habitat, provided a background on the need to review EFH and HAPC and stated that it came about because of the impacts to habitat by destructive fishing gears, but in the WPR the Council doesn't allow this type of gear. He reviewed EFH Designations and the different levels that EFH can be designated at due to the amount of information available and said that EFH should be reviewed every five years. He noted that the designations in the WPR were designated at level 1 because there was not a lot of information available back in 1996. He also showed an example of what bottomfish EFH was designated as during that time. Everson also provided information on HAPC and the criteria for designating HAPCs.

Mitsuyasu presented a review of bottomfish EFH and HAPC designations and changes to the designations being considered. He provided a review of the previous designations as well as the change to additional complexes for EFH. He also showed the proposal for 16 HAPCs and discussed the WPSAR review of these changes. Mitsuyasu also provided a report from the WPSAR review and discussed the recommendations from the group and shared a preliminary summary. Recommendations from WPSAR included the need for more life history work and recommended to break the two complex groups into three groups and add additional information from all the life stages.

The AP was concerned with the designation of EFH and its implications to fishing. Mitsuyasu explained that EFH is used to make sure that fishing is considered and analyzed whenever the Federal government proposes to use an area for any purpose.

### **C. Status of State Bottomfish Regulatory Changes**

Alton Miyasaka, HDAR, stated that state rules were just adopted last year so they are planning on implementing the changes now. He mentioned that a trip report form is being developed and will be beta tested soon and will go through a series of statewide meetings to inform the fishing public about what the changes are, what the new form looks like, and why the changes were necessary. They also hope to make trip reporting available online as well. He said that public meetings may be held in the summer of 2011 but there is no exact schedule set. In the next fishing year, he said that HDAR will institute a voluntary change over to the trip reporting format to provide a transitional time for fishermen and time to do outreach to fishermen. He noted that enforcement of trip reporting is a concern, but they don't plan on being strict on the reporting at first (issuing fines on delinquencies) but will stress the importance of timely

information. However, he explained, the following fishing year a citation/fine system will be implemented to enforce the provision.

Miyasaka also noted that the BF Registry will become an annual registration (from one-time registration) and by August 2011 you can start registering online or in-person. He said that all of the old registrations will expire at the end of August 2011, and new registration won't be effective until the season is open. He noted that registration is still free and the announcement will be included in public meetings and that the BF registry is a permanent number system so numbers shouldn't change from year to year.

The AP members were aware of the changes towards trip reporting as well as the annual registration but had some concerns regarding the change over and its affect on bottomfish ACLs. They reiterated their recommendation for the Council to request the State of Hawaii to utilize its BF vessel registry to collect data, and tie it to the annual renewal.

They also continued to question the necessity of the Bottomfish Restricted Fishing Areas (BRFAs), particularly in light of the conclusions of the WPSAR review of proposed EFH and HAPCs. The AP noted that some of the proposed HAPCs are currently BRFAs and that WPSAR concluded that these areas are not special places for recruitment or spawning (a condition of designation for HAPCs). They also noted that the State of Hawaii's impetus for creating the BRFAs were to "conserve the spawning areas of bottomfish" (HAR §13-94-8). The AP was very concerned that the BRFAs were not doing what it was created for and urged the Council to continue to request the BRFAs be removed taking into account the WPSAR review.

#### **D. Options for Limited Entry of Offshore Aquaculture**

DeMello presented a background on offshore aquaculture in the EEZ and the need for limited entry options. He said that the Council was interested in developing criteria for limited entry and environmental monitoring and provided options for the groups to consider.

The PT and AP had a lengthy discussion on the impacts of escapes from current aquaculture operations and noted its displeasure. They agreed that someone needs to be held accountable for the impacts of aquaculture operations on the environment and wild fisheries. Council staff noted that to hold someone accountable, there needs to be some rule or law that was broken, which is why these options were presented. The AP said that there needs to be a way for fishermen (and the general public) to identify cultured fish, such as physical markings or tags. They also suggested that permits be revoked if escapes are found to have negative impacts on the environment or wild fisheries and that these escapes should be reported in a timely matter. The AP also recommended that any limited entry criteria being considered should also look at restrictions on gear to minimize escapes.

## **10. Coral Reef Funded Projects**

### **A. Kona Crab Stock Assessment**

Lennon Thomas, HPU Graduate Student, gave a presentation on an assessment of the MHI Kona Crab stock being conducted. She noted that she received funding through the Council's coral reef grant and its focus on capacity building to determine the current state of kona crab stock in MHI as part of her Master's Thesis. She reviewed the life history characteristics of the species and identified gaps in the collected information as well as analyzed spatial and temporal trends in the commercial fishing data to standardize CPUE across time and apply a general linear model to the data. Thomas presented the results and showed a general decline in landings over the time series, with Penguin Bank makes up a large part of the landings. She noted that these landings o drive the catch rate in the fishery. A 50% decline in catch rates was shown, but she explained that other factors not included in the model also likely affected catch rates (difference in efficiency, rec catch, etc).

The PT and AP applauded Thomas' efforts in producing an assessment of the Kona Crab stock, but were concerned with what the data shows and attributed some of the declines to the changes in regulations (i.e. prohibition on bottomfish fishermen having Kona Crab gear, prohibition on taking unberried females, etc). They also pointed out that Kona Crab fishing is not worth traveling all the way to Penguin bank because of these regulations, increasing fuel costs, and predation. The group agreed that this was a great first step but recommended that the Council look into collecting other information such as non-commercial participation and catch and the effects of the regulations to determine an accurate ACL for this fishery.

### **B. Black Coral Mapping**

Daniel Wagner, UH-Manoa Graduate Student, presented a project on mapping black coral populations in Hawaii. He explained that the project, funded through the Council's coral reef grant, was designed to map the populations of the commercially valuable Hawaiian black corals (*Antipathes griggi*, *A. grandis*, *Myriopathes ulex*). Wagner said that they used literature records (~400 articles), collected samples (300 specimens from the National Museum of Natural History, Bishop Museum, and specimens collected by researchers between 2006 and 2010), and photos/video from 30 years of surveys (over 1800 dives by Hawaii Undersea Research Laboratory and Monterey Bay Aquarium Research Institute utilizing manned subs and Remotely Operated Vehicles). He showed the results of the projects which included maps of the distribution of the three species, and the distribution by harvesting depth. He noted that the important beds for black coral in the MHI are the Auau Channel bed, East and South Kauai bed, and Keahole/South Point bed.

The group was appreciative of the presentation and inquired about the invasive soft coral (*Carijoo riisei*) and its impact on the distribution. Wagner deferred to Sam Kahng (black coral

researcher) who noted that recent surveys showed that the invasive species looks less dense than in previous surveys (although it could be attributed to the use of high definition technology) and that the problem is probably less severe than previously thought.

### **C. Deepwater Chorusing Phenomenon**

Marc Lammers, UH HIMB/PIFSC CRED, presented on a phenomenon known as Deepwater Chorusing. He said that the objectives of research, also funded through the Council's coral reef grant, was to: 1) use the naturally occurring sounds as spatial and temporal indicators of biological activity; and 2) use acoustic tools to explore deep areas. This project, he noted, was built upon previous research where they placed acoustic recorders in 300 feet of water and found that during the day there is not much going on, but in the evening there are many sounds being recorded. Through this project, they were aiming to determine the source of the sound and if it was localized. Lammers said that in this project, they deployed recorders at 110-170 m at four sites around Oahu (Kaena, Kahuku, Mokapu, Makapuu) He said that the results showed that chorusing occurs nightly at all four locations and begins 25-45 min after sunset. Results also show that the chorus is seasonal, and predominant between January and July, although it is found weaker and less consistent year round in some areas (i.e. Makapuu). Lammers noted that the sound recorded was 12.5x louder during chorusing than at ambient levels and that the intensity differed by area and varies in duration by location from ½ hour to 10 hours.

Results also showed that the Kahuku site had a strong correlation between chorusing and tidal strength. Lammers said that they still couldn't identify the source of the chorusing but suggested that it could be fish or a mesopelagic boundary community (vertically and horizontally migrating community where species are moving up and down the water column or in and out from shore) and noted that researchers in Australia hypothesize that it's the mactophid fish that make up a large part of this community. He hopes to continue this research to establish the location of the chorusing in the water column utilizing a vertical array of recorders and dispersed recorders along the slope to see what the depth range of the chorusing is. He is also working with botcam projects to determine the source but botcam is primarily used during the day, so he is discussing using it at night to see if bottomfish make these same sounds.

### **D. Report on Tournament Sampling**

Edwin Ebisui III presented on a project he did for the Council as part of its coral reef grant to collect biosamples and support the development and announcement of fishbox.org. He said that the project utilized fishing tournaments to collect life history samples from coral reef associated species (particularly larger sizes where data is not currently available) which included length, weight, otolith, gonads, and heads. He said that it was a great opportunity to provide outreach on the importance of collecting this information as well as providing information about the Council and its coral reef program. Ebisui III also noted that large fish provided lots of exposure and recommended further outreach with shoreline fishermen on this type of data collection. He

noted that participation was voluntary and samples are being tested and run through collaboration with the Pacific Islands Fisheries Group.

### **E. Upcoming Coral Reef Projects**

DeMello presented an overview of the Council's coral reef program and the projects being funded to inform the Council's FEPs. He noted that the focus of the coral reef program has shifted recently to include local capacity building, incorporating traditional knowledge, collecting life history information, and working with communities. He also urged the AP to be involved in local meetings and provide their comments and suggestions for coral reef fisheries to the Council.

### **11. Public Comment**

No public comment

### **12. Discussion and recommendations**

The Hawaii FEP Plan Team made the following recommendations:

#### *In regards to the bottomfish fishery:*

The Hawaii Plan Team recommends that there be federal-state collaborative outreach efforts to inform the public of the amended bottomfish regulatory and reporting changes.

The Hawaii Plan Team recommends that the State pursue its initial efforts to establish a dealer licensing system.

#### *In regards to the non-commercial fishery data reporting:*

The Hawaii Plan Team recommends that when the State of Hawaii Annual Bottomfish Registry is operational and fully functioning, the Council consider repealing the federal non-commercial bottomfish permit and reporting requirement. The registry would provide the total bottomfish participants from which CML and non-CML license holders can be identified. A targeted survey of non-CML holders similar to those already conducted by PIFSC to obtain estimates of catch and effort and other fishery information

#### *In regards to the annual report:*

The Hawaii Plan Team recommends that the management leads of PIFSC, PIRO, and HDAR assign staff to work with Council staff in drafting the annual report modules for the Hawaii FEP fisheries.

#### *In regards to fisheries monitoring:*

With the increased requirements for permit and reporting in light of ACL management, the Plan Team recommends that the Council advocate for a corresponding increase in funding to support agencies in achieving the mandate.

*In regards to the species list for ACL specification:*

The Hawaii Plan Team recommends that for the initial coral reef ecosystem Annual Catch Limits specification be made for species that comprise 90% of the total coral reef catch. These species should be grouped to family and ACLs specified for each family. For the species which comprise the remaining 10%, the PT recommends they be grouped into a single complex and an ACL be specified for the group as a whole. For the species that are of management importance, the PT recommends that they be removed from its respective family grouping and ACLs shall be specified individually.

For the future years, the PT recommends the Council utilize the ecosystem classification and consider moving coral reef species which are not or only a small percentage are caught in federal waters into the ecosystem component category. Alternatively, the Council should also re-evaluate the need for federal management of these species and consider removal from the management units.