Re-specifying Annual Catch Limits for the Crustaceans and Precious Corals Management Unit Species in the Western Pacific Region

160th Meeting of the Western Pacific Regional Fishery Management Council
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The Council's Task

At its 160th meeting, the WPRFMC will be reviewing the Annual Catch Limits (ACLs) for the Hawaii and Territories Crustaceans (Kona crab, deep water shrimp, spiny and slipper lobsters) and precious corals. There was no specific language in the previous specification that the ACLs apply for multiple years (unlike the coral reef MUS). Aside from the spiny lobster, slipper lobster, and kona crab there is no new information available to make significant revisions to the ABCs and subsequent ACL. The SSC had specified the ABCs and the Council needs to deliberate to set the ACLs.

For the spiny lobster the biomass augmented catch-MSY approach was used to determine the MSY (Sabater and Kleiber 2014). However, since there is no fishery independent source of biomass information available, the model resorted to the default catch-MSY mode as described by Martell and Froese (2012). The P* working group already evaluated and scored the assessment aspect and the uncertainty characterization of the biomass augmented catch-MSY model. The SSC provided the scores for the stock status and the Productivity-Susceptibility dimension resulting in the selection of the risk of overfishing level and acceptable biological catch. The following options are available for the Council to deliberate on:

- Option 1: status quo and roll over the existing ACLs
- Option2: set the ACL equal to the new ABC
- Option 3: set ACL 5% lower than the new ABC based on the SEEM analysis (presented at the 159th CM)

For slipper lobsters, the catch data for the Hawaii slipper lobsters and kona crab had been update to 2013 and ran the same control rule measure (75th percentile). The proxy method was applied to the new 75th percentile values to derive the ABCs for the Territories. The following options are available for the Council to deliberate on:

- Option 1: status quo and roll over the existing ACLs
- Option2: set the ACL equal to the new ABC
- Option 3: set ACL 5% lower than the new ABC based on the SEEM analysis (presented at the 159th CM)

For the deepwater shrimp and precious corals, there are no new information available to could adjust the current ACLs. The fishery is currently inactive with only one permit issued to harvest black corals in Hawaii and the information is confidential. The following options are available for the Council to deliberate on:

- Option 1: status quo and roll over the existing ACLs
- Option 2: set ACL 5% lower than the ABC based on the SEEM analysis (presented at the

159th CM)

It is projected that there will be no significant new information that would be available for slipper lobsters, kona crab, and precious corals for the Territories in the next 4 years. It is also assumed that the precious corals in Hawaii would remain at low participation hence for a multiyear ABC and ACL specification can be considered for fishing year 2015-2018.

Current catch information in the Territories

There is no current harvest for Kona crab and deep water shrimp. There had been no commercial record of slipper lobster landing in the last fishing year except in American Samoa where it was reported at 5 lbs. Coutures (2003) indicated that slipper lobsters make up less than one percent of the total lobster landing in American Samoa. This was verified by the BioSampling Program where they estimated slipper lobster landing to be 0.9% of total lobster catch (Ochavillo Email Comm. 11/29/2011). Spiny lobster landings did not exceed the ACLs (AS = 1,973 lbs out of 2,300 lbs catch limit; GU = 611 lbs out of 1,900 lbs catch limit; CNMI = 0 lbs out of 5,500 lbs catch limit). There is currently no active precious coral fishery in the Territories.

Current catch information in Hawaii

The Kona crab landing from last year was 7,423 lbs out of 27,600 lbs catch limit. Deepwater shrimp landing last year was at 13,254 lbs out of 250,773 lbs catch limit. The commercial landing for slipper lobsters was at 67 lbs out of 280 lbs catch limit. Spiny lobster landing was at 10,429 lbs which exceeded the ACL by 429 lbs. The precious coral fishery is currently inactive.

Summary of options

The table below shows the summary of options for the Council:

Management Unit Species	Most recent catch (2013) (lbs)	Option 1: Status quo/Roll over (lbs)	Option 2: ACL = $ABC_{updated}$	Option 3: ACL < ABC (by 5%)
Deepwater shrimp				
• Hawaii	13,254	250,773	250,773 (no new info)	238,234
• American Samoa	0	80,000	80,000 (no new info)	76,000
• CNMI	0	275,570	275,570 (no new info)	261,792
• Guam	0	48,488	48,488 (no new info)	46,064
Spiny lobster				
• Hawaii	10,429	10,000	15,800	15,010
• American Samoa		2,300	5,100	4,845
• CNMI	1,420	5,500		
• Guam		2,700	3,300	3,135

Slipper lobster				
• Hawaii	67	280	235	223
• American Samoa	0	30	27	26
• CNMI	0	60	54	51
• Guam	0	20	16	15
Kona crab				
• Hawaii	7,423	27,600	27,100	25,745
• American Samoa	No fishery	3,200	3,200	3,040
• CNMI	No fishery	6,300	6,200	5,890
• Guam	No fishery	1,900	1,900	1,805
Black corals				
• Hawaii	Confidential data	5,512	5,512 (no new info)	5,236
• American Samoa	No fishery	790	790 (no new info)	751
• CNMI	No fishery	2,100	2,100 (no new info)	1,995
• Guam	No fishery	700	700 (no new info)	665
Precious corals known beds in Hawaii				
• Makapuu				
o Pink	No fishery	2,205	2,205 (no new info)	2,095
o Bamboo	No fishery	551	551 (no new info)	523
• 180 Fathom				
o Pink	No fishery	489	489 (no new info)	465
o Bamboo	No fishery	123	123 (no new info)	117
• Brooks Bed				
o Pink	No fishery	979	979 (no new info)	930
o Bamboo	No fishery	245	245 (no new info)	233
• Kaena Point				
o Pink	No fishery	148	148 (no new info)	141
o Bamboo	No fishery	37	37 (no new info)	35
• Keahole Point				
o Pink	No fishery	148	148 (no new info)	141
o Bamboo	No fishery	37	37 (no new info)	35
• Exploratory areas	No fishery	2,205	2,205 (no new info)	2,095
Precious corals in exploratory beds				
• American Samoa	No fishery	2,205	2,205 (no new info)	2,095
• Guam	No fishery	2,205	2,205 (no new info)	2,095
• CNMI	No fishery	2,205	2,205 (no new info)	2,095

Pros and Cons for the Council ACL Setting Options

Option 1: Maintain status quo and roll over the 2014 ACLs to fishing year 2015-1019

PROS	CONS
• Environmental and socioeconomic analysis has already been done but may need to be updated with more current numbers	• Continues to constrain the fishery due to the low number just based on catch information
• Minimizes administrative burden on respecfying numbers especially for changes that are insignificant	• Spiny lobster has been exceeded and would trigger accountability measures
• Minimizes public confusion on the new ACLs	• High potential for ACLs could be exceeded because of underestimation which may trigger accountability measures
• Remains precautionary due to the low numbers and promotes conservation at the same time	
• ACLs for slipper lobsters, deep water shrimp, Kona crab, and precious corals have not yet been exceeded hence accountability measures has not yet been triggered	

Option 2: Set ACLs equal to ABCs (ACL would be the same for deep water shrimp; new ACLs for spiny lobsters with ABCs based on the catch-MSY approach and P* analysis; new ACLs for slipper lobsters and Kona crab based on re-calculated 75th percentile of updated catch time series)

PROS	CONS
• Complies with National Standard 2 in using the best scientific information available	• Continues to constrain the fishery due to the low number just based on catch-only information
• For species with no new information, the ACLs will be the same and minimize public confusion on the new numbers	• Spiny lobster has been exceeded and would trigger accountability measures
• For species with new information, setting ACL=ABC will not further repress the fishery	• High potential for ACLs could be exceeded because of underestimation which may trigger accountability measures
• Remains precautionary due to the low numbers and promotes conservation at the same time	• ACLs for slipper lobster and to some extent Kona crab in some Territories will have a lower ACL
• ACLs for slipper lobsters, deep water shrimp, Kona crab, and precious corals have not yet been exceeded hence accountability measures has not yet been	

triggered	
• ACLs for spiny lobster will be higher for all island areas	

Option 3: Set ACLs less than the ABCs by 5% from existing SEEM analysis (new ACLs for all crustaceans and precious corals with new or rolled over ABCs)

PROS	CONS
• Complies with National Standard 2 in using the best scientific information available	• Will potentially further constrain the fishery due to the reduced numbers just based on catch-only information
• Applied the process specified in the FEP using the SEEM analysis	• The existing SEEM analysis was specific to coral reef fisheries and may not be applicable to the crustacean and precious coral fishery
• ACLs for spiny lobster will be higher for all island areas even with the reduction by 5%	• Spiny lobster has been exceeded and would trigger accountability measures
• More precautionary and increases the buffer between ABC and ACL	• Higher potential for ACLs could be exceeded because of underestimation which may trigger accountability measures
• ACLs for slipper lobsters, deep water shrimp, Kona crab, and precious corals have not yet been exceeded hence accountability measures has not yet been triggered	• ACLs for slipper lobster and to some extent Kona crab in some Territories will have a much lower ACL
• The current precious coral fisheries are inactive and reduction by 5% will not have a significant impact to the fishing community	•