

## Crab Plan Team Report

The Crab Plan Team met September 14-15th, 2009 at the Alaska Fisheries Science Center in Seattle, WA.

Crab Plan Team members present:

***Ginny Eckert (UAF/UAS), Vice-Chair***

***Diana Stram (NPFMC)***

***Doug Pengilly (ADF&G-Kodiak)***

***Gretchen Harrington (NOAA Fisheries –Juneau)***

***Wayne Donaldson(ADF&G-Kodiak)***

***Jack Turnock (NOAA Fisheries/AFSC-Seattle)***

***Shareef Siddeek (ADF&G-Juneau)***

***Herman Savikko (ADF&G-Juneau)***

***Lou Rugolo NOAA Fisheries /AFSC-Kodiak)***

***André Punt (Univ. Of Washington)***

***Bill Bechtol (UAF)***

***Bob Foy (NOAA Fisheries /AFSC-Kodiak)***

***Brian Garber-Yonts (NOAA Fisheries-AFSC Seattle)***

Ginny Eckert chaired the meeting. Forrest Bowers (ADF&G, CPT Chair) participated by teleconference from Dutch Harbor due to travel difficulties. Josh Greenberg (UAF) was unable to attend. The attached agenda was approved for the meeting with no changes. Minutes from the May 2009 meeting were approved with one change to the snow crab section.

Members of the public (and state and agency staff) present for all or part of the meeting include: Arni Thomson, Anne Vanderhoeven, Heather McCarty, Frank Kelty, Dave Benson, Rob Rogers, Margo Posten, Brett Reasor, Laura Slater (ADF&G), Doug Wells, David Barnard (ADF&G), Dave Hambleton, Ray Nomura, Kevin Kaldestad, Gordon Kristianson, Mark Casto, Jack Tagart, Lance Farr, Stefanie Moreland (ADF&G), Erik Olson, Liz Chilton (NOAA Fisheries), Mike Shelford, Grehor Gadmundsson, Bill Wilson (NPFMC), Matthew Eagleton (NOAA Fisheries), Jeff Kauffman, Steve Hughes, Scott Goodman, Earl Krygier, Cody Szuwalski, Diana Evans (NPFMC), Brett Reasor, Mark Stichert, Peggy Murphy (NOAA Fisheries), Mark Casto, Gary Loncon, Edward Poulsen, David Witherell (NPFMC), Anne Hollowed (NOAA Fisheries), Lenny Herzog, Jim Balsiger (NOAA Fisheries), Doug DeMaster (NOAA Fisheries), Linda Kozak, Jim Stone, Sue Salveson (NOAA Fisheries), Clayton Jernigan (NOAA GC), Jie Zheng (ADF&G), Pat Livingston (NOAA Fisheries).

### **Workshop report**

André Punt presented the main findings from the Alaska Crab Stock Assessment Workshop held in May 2009. The report from the workshop, including the guidelines for stock assessments, was appended to the SAFE report. Doug Pengilly provided an edit to Appendix C (guidelines). Although the workshop report is finalized, and the stock assessment guidelines will be revised over time as needed, the current report guidelines should be used for stock assessments presented in May 2010; guidelines will also be posted on the Council web-site.

The team discussed the appropriate timeframe and data to be utilized in the determination of overfishing, overfished, and rebuilding. The final survey data and catch data for the current year is necessary to determine stock status (and rebuilt status). The CPT agreed that stock status relates to the previous February to determine if a stock is overfished. The stock status is also projected ahead to next February to determine whether a stock is approaching an overfished condition, as occurred with EBS Tanner crab this year, but there remains a one-year lag to make an absolute determination of overfished. The CPT also agreed that the determination of whether overfishing occurred is made by comparing the catch for a year with the OFL for that year.

### **Survey results**

Bob Foy summarized the 2009 BSAI trawl survey results. Notably, Pribilof Island red king crab abundance dropped substantially with the new survey. Bob described progress in modifying the survey database to correct for data errors, omissions, and adjustments for the variable net width. Observed error fixes affected the time series of snow crab and Tanner crab abundances more than other stocks.

A working group of CPT members is to be formed this fall with the intent of producing a paper with statistical comparisons and analyses to be presented to the CPT in May 2010. This report will likely become an in-house technical memo for CPT review, with subsequent publication. CPT members expressed appreciation for the work undertaken to disentangle changes to the database from the presentation of preliminary data in May.

A new time series of survey abundance estimates will result from these modifications. Resolution of strata issues will make the new time series available for use by assessment authors in the May 2010 assessment. Note that assessment authors should compare the old and new time series in the next assessment cycle if new data are available following the March CPT meeting. The default preference is that the bulk of the analyses be conducted using the revised database including error fixes and variable net width. These data were already used as the status quo for all assessments except for snow and Tanner crabs (for which comparison against the revised dataset was included as an appendix to each assessment). Time will be allotted at the March meeting for review of the new dataset changes and where major modifications occur.

The team discussed the potential size differences due to growth between re-tows of Bristol Bay red king crab and the procedure for utilizing the re-tow data. Currently, males are averaged between the leg 1 tow and the leg 3 re-tow, while females from only leg 3 are applied to survey abundance estimates. Lou Rugolo discussed issues in using females only from leg 3, noting that because Bristol Bay is not entirely resampled, retow data are not available from all stations, crab migration between survey legs cannot be evaluated. Bob answered that re-tow stations were moved one line were extended to the east to address this issue but a full account of changes in reproductive status and survey biomass would require resampling of the entire area.

### **Bering Sea Fishery Research Foundation presentation**

Ken Weinberg (AFSC) and Steve Hughes (NRC-BSFRF), Scott Goodman (BSFRF) provided an overview of the joint NMFS-BSFRF survey results, focusing on catch comparisons between two NMFS vessels and one BSFRF vessel. The CPT discussed the confidence intervals around the estimates and further analyses with this study, noting that variability will differ with changing approaches. BSFRF produced a short document for CPT distribution with plans to put together a peer-reviewed publication in the future. CPT members questioned whether broader area and depth range sampling would be beneficial. Steve Hughes noted that substrate composition is very important and was considered in this study, but funding issues limit the ability to broaden the survey.

The CPT discussed the protocol for considering these new results, noting that the September CPT meeting is not the meeting for incorporation of new survey data into the assessments. Questions posed for future consideration included: (1) is the experimental design sufficient to drive changes; (2) are samples in this study sufficient to indicate that there are changes necessary; (3) are data in a form that is usable by the assessment authors; and (4) how should the data be included? The BSFSF survey information, if included in the assessment, should simply be treated as an additional data source. Process-wise, these data represent new information that is potentially influential and should be evaluated.

Some notes of caution were expressed by team members regarding the use of these data, including issues associated with 5 minute tows and habitat affects on net selectivity. In particular, large differences in survey results appear to be driven by large catch differences in individual tows.

The team recommended that the snow crab stock assessment authors evaluate these data prior to incorporation into the assessment in May. The assessment authors plan to evaluate the data this winter and consider incorporation into the next assessment.

## **SAFE report**

### ***Snow crab***

Jack Turnock summarized the snow crab assessment. André commented on retrospective patterns, noting they appear consistent in overestimating biomass and thus potential recovery.

The team discussed OFL projections and the use of the old and new survey data. The CPT deferred discussion of model assessment changes (i.e. not using the new survey data) to the May 2010 meeting per the assessment review process under amendment 24. Discussion at this meeting was focused on inclusion of the BSFRF data in the assessment, implications of changing the survey data, and the stock status determination. Further discussion was held on progress towards rebuilding for the snow crab stock.

The team discussed rebuilding issues: (1) the stock will not rebuild in the 10-year time frame established in the rebuilding plan; and (2) upon determination that adequate progress has not been made towards rebuilding, what conservation and management measures shall be analyzed for a revised rebuilding plan. Jack presented a range of options that could be considered in terms of further conservation measures. The Team discussed the CPT role in either recommending harvest strategies or discussing alternative management measures in a revised rebuilding plan. The CPT notes that the approach for conducting the projections and illustrating the trade-off between rebuilding time and catch is consistent with how the assessment is conducted. However, the CPT recognized that it does not recommend harvest strategies for TAC setting.

The team briefly discussed the appendix to the stock assessment which provided an economic analysis of rebuilding options. The team notes that methodology for economic analyses should also be reviewed at the May meeting if the intention is to incorporate these into the stock assessment or rebuilding plan analysis.

The team deferred discussion of timing for the rebuilding analysis to new business in conjunction with other analyses to come forward at that time.

### ***Bristol Bay red king crab***

Jie Zheng summarized the BBRKC assessment results. A CIE review was conducted this summer. Further discussion of the CIE review results and the author's plans to revise the assessment accordingly will occur in May 2010.

The team discussed the retrospective pattern on F rates in the assessment. The pattern indicates the assessment consistently overestimates biomass in the current time period when new data are added. This should be better characterized as uncertainty in the assessment. André noted that with ACLs, the buffer should be greater to account for this overestimation. André also noted that the uncertainty surrounding the OFL should be brought forward in the assessment and highlighted in the SAFE summary; this will have further bearing as we move into ACLs.

The team discussed the movement of the crab population back to southern Bristol Bay in 2008 and 2009. Concerns were raised regarding habitat damage in southern Bristol Bay due to groundfish trawling in this region. Team members suggested looking at spatial aspects of groundfish bycatch in this region to see if there are any changes in the spatial extent of the fishery. This habitat concern should be raised in conjunction with EFH and potentially revising those definitions in the coming year.

The assessment author raised concerns over the current stock assessment boundaries of BBRKC given recent occurrences of red king crab in the Northern. The CPT requested further evaluation, particularly given questions about the contribution of these “northern” crabs to stock productivity. Arni Thomson suggested additional research is needed into stock structure and movement of reproductive stock into other portions of Bristol Bay.

### ***EBS Tanner crab***

Lou Rugolo summarized the EBS Tanner crab assessment, noting the change in stock status from 2008 to 2009 with the projected biomass in February 2010 falling below MSST, even under a zero catch harvest strategy. Thus, the stock is approaching an overfished condition. The CPT suggested that Tanner crab bycatch in the Scallop fishery be included in estimates of total removals in next year’s assessment.

An appendix to the assessment provided comparative information on the use of the revised survey dataset compared with the old survey dataset; the old dataset is used in the assessment. Although these revised data are not used in this assessment, the team noted the direction of OFL and biomass (lower) with these new data incorporated, a consideration in the upcoming rebuilding analyses.

The Council will receive a letter from NMFS notifying the Council that the stock is approaching an overfished condition and that a rebuilding plan must be prepared. The team noted that the current stock status for EBS Tanner crab highlights the importance of a model-based stock assessment to evaluate the inherent trade-offs under rebuilding scenarios. This model development should be the highest priority for crab stock assessments next year.

Jack Tagart expressed concern with the lengthy vetting process to develop a model, and the chance that any proposed model may not be approved for use in the first year. Jack Turnock expressed concern with TAC setting this year, in particular the level the State may set as compared to the retained catch estimate in the assessment. If the State sets this year’s TAC at the retained catch OFL estimate then recommendations on additional conservation measures may be warranted.

Bycatch considerations are a particular concern with this stock. While snow crab bycatch is best estimated in the snow crab fishery, bycatch in other fisheries could drive an overfishing determination.

Ed Poulsen also noted that new regulations prohibit the targeting of Tanner crab in the snow crab fishery, a factor that previously drove high Tanner crab bycatch rates.

### ***St. Matthew blue king crab***

Jie Zheng reviewed the stock assessment for St. Matthew blue king crab. The author did not include bycatch data in the assessment for groundfish trawl fisheries and, thus, does not compute a total catch OFL. The assessment is also male-only. The Team requests that the most recent trawl survey data points be included in the graphs depicting trends. This should be done for the final report this week. The CPT previously recommended model scenario 1 and time frame 1989-2009 for defining the  $B_{MSY}$  proxy.

The team requested the authors revise Table 7 to clarify dates and specify which components of the table are outputs from model and which are projections. The summary should also note that the best available information indicates the stock has now been above  $B_{MSY}$  two years in a row (three years with the projection) and that this stock is now rebuilt.

The team discussed estimation of total catch OFL for this stock. Jie indicated that he needs by size and sex data from the observer database. Bob Foy will work to get Jie these data for the next stock assessment. The CPT noted that some assumptions regarding sex ratio are needed if females continue to be excluded from the assessment. Team members commented that directed fishery bycatch is primarily females.

The Team recommends the male pot catch OFL, as suggested by the author, noting that this moves closer to a total catch OFL, but that female bycatch and groundfish fishery bycatch are not yet included in the model.

### ***Pribilof Islands red king crab***

Bob Foy summarized the Pribilof Islands red king crab assessment. Based on recent survey results, biomass has declined and stock size is now estimated to be very close to the MSST, a consideration in evaluating bycatch given that the directed fishery itself remains closed.

The team discussed population trends for this stock. For example, old large animals appear to be missing now. The Team notes high variability in the historical survey estimates of abundance for this population. However, between-year changes in abundance would not likely be significant if account was taken of the precision of the estimates. In the next assessment the Team recommends the authors add confidence intervals to graphs, even just on one group to show the relative variability. Stock size variability in the survey biomass estimates provided a good argument for not basing the OFL on the most recent year. A CSA-model is forthcoming and will include pot survey data from 2008 and previous years.

### ***Pribilof Islands blue king crab***

Bob Foy reviewed the Pribilof Islands blue king crab assessment. The team reviewed the previously recommended rebuilding alternatives, noting that the SSC suggested considering slick groundfish pot tunnel ramps for gear modifications. Analyses are forthcoming for rebuilding alternatives to see which of the proposed alternatives make most sense for further consideration.

The team requests that the authors evaluate more specifically the spatial component of the bycatch in 2008/09, particularly in the hook-and-line fishery and the Pacific cod fishery.

### ***Pribilof Islands golden king crab***

Doug Pengilly summarized the Pribilof Islands golden king crab assessment. The team discussed the alternative time periods for establishing the average catch calculation. The author recommended 1993-1998 as this time frame is neither constrained by a GHF nor contained years of confidential catch. Problems were noted with the ability to have a total catch OFL for this stock as data are not available from directed fisheries over the entire time frame for the OFL average total catch determination. Bycatch

mortality in crab fisheries was presented in the assessment. This information could be used to establish alternative total catch OFL options in the 2010 assessment. However directed fishery bycatch from 2000-2001 would need to be extrapolated to previous years for bycatch estimation. The author noted that slope survey data could be used in a Tier 4 assessment for this stock. However, data retrieval, consistency in standard surveys, and catchability with slope survey gear are issues that need to be resolved.

The team recommends the assessment author further evaluate all sources of mortality in order to present alternative total catch OFL options for the 2010 assessment. The team encourages further inclusion of the slope survey data to consider whether or not information may be sufficient to move this assessment up to Tier 4 in future years.

### ***Adak red king crab***

Doug Pengilly reviewed the Adak red king crab assessment. The author discussed the data limitations associated with moving this stock out of Tier 5 and conservation concerns regarding the current status of this stock. An ADF&G commissioner's permit request was granted for test fishing with no retention this fall/winter. The test fishery is intended to determine presence/absence of red king crab in areas that have historically been important red king crab habitat in the western Aleutian Islands.

The author will reexamine the available bycatch data for possible inclusion in the OFL calculation for the 2010 assessment. However, recent data are not comparable to past data (as opposed to the proposal for a total catch OFL for Pribilof Islands golden king crab assessment). Team members noted that most of the non-retained crab is from the groundfish fisheries. The team discussed how to establish applicable data as it is important to limit bycatch in this stock given conservation concerns regarding stock productivity. Coupling of total catch OFL with limits in the groundfish fishery might provide a reasonable solution.

The team agreed with the author recommendation to use the time period 1984/85-2007/08 for the 2009/10 retained catch OFL.

### ***Economic SAFE***

Brian Garber-Yonts provided an overview of the process and preparation for a new economic SAFE report for crab fisheries. Further discussion of the timing and plan teams role in economic SAFE reports will be discussed in the joint meeting (9/16) with groundfish plan teams. Scheduling for a fall economic report is infeasible in order to incorporate the most recent information into the report.

The Team discussed time frames for any review period for economic analyses. The team requests the ability to review relevant analyses using the crab data, particularly in relation to stock assessment and rebuilding. The actual data themselves are not feasible to be evaluated within the current plan team function and role.

A draft economic SAFE will be available next month. The team would like to have a role in providing some input into the analyses used in the economic SAFE. The team will agenda additional time for the May meeting to review and comment on the economic SAFE report and discuss the appropriate role for team review.

### ***Trawl Sweeps***

The team received presentations from Diana Evans and Craig Rose about the trawl sweep modification analysis, and associated considerations of revisions to the St. Matthew Island HCA and Northern Bering Sea Research Area boundaries. Craig briefed the team about the August 2009 research showing that the trawl sweep modification reduced injury and mortality in unobserved red king crab encounters with the trawl sweeps. Robert Foy presented information from the NMFS trawl survey on blue king crab, Tanner

crab, and snow crab distribution in the St. Matthew Island HCA area and to the east, in the Modified Gear Trawl Zone. Bob noted that some blue king crab were found in the survey stations east of the current boundary of the St. Matthew HCA, but the numbers were low, especially compared to the abundance of crab just outside the boundary to the south. For other crab species, there are consistently very few Tanner crab to the east, but in 2009 there were some high catches of snow crab at survey stations to the east. Diana also presented information from the survey on flatfish distribution in these areas. John Gauvin commented that the timing for fisheries likely to occur in the Modified Gear Trawl Zone would be May to June for the yellowfin sole fishery, and July for flathead sole (Bering flounder). He also noted that the Bering Sea sediment map, included in the trawl sweep modification analysis, indicates a change in sediment type east of St. Matthew Island that may correspond with the relatively low abundance of flatfish immediately east of the island, and a higher abundance at the next survey station to the east. The team noted that molt timing, the period when red king crab would be most susceptible to injury from trawl encounters, occurs from spring to early summer.

With respect to the trawl sweep modification research, the team questioned how to ascertain the magnitude of unobserved mortality, occurring from crab encounters with the trawl sweep and footrope, relative to observed crab bycatch in trawl nets. Regarding the Council's question of whether the St. Matthew HCA boundary was appropriate for protecting blue king crab, the team discussed the importance of protecting the small population to the east from trawling impacts. The team recommended moving the eastern boundary of the St. Matthew HCA eastward to encompass the territorial sea around St. Matthew Island, 12 miles east of the island. The new boundary line would parallel the current boundary, but move the boundary approximately halfway to the next survey station grid, between survey stations 23 and 22, providing additional protection to the blue king crab observed to occur in this region.

The team noted that other areas to the south and west of the St. Matthew Island HCA are also important areas for crab populations and habitat, but did not comment on other changes to the HCA boundaries. The team may agenda this item for review and discussion at a future date.

### ***Crab bycatch in groundfish fisheries***

Diana Stram provided an overview of a staff discussion paper to the Council summarizing current closures under the BSAI groundfish FMP for crab protection measures and bycatch in the groundfish fisheries by individual crab stock. This presentation was a follow up to the team discussion in May 2009 which resulted in a recommendation to the Council to consider limits on crab bycatch by stock in groundfish fisheries given that, under the new OFL system, all groundfish fishery catch accrues towards stock specific crab OFLs, but bycatch of a number of crab stocks is not limited by any management measures in groundfish fisheries. The team reiterated the request to the Council to consider limits for crab bycatch in groundfish fisheries. The team further recommends that it will be most important to consider limits on bycatch in those crab stocks that are most vulnerable (i.e., closed fishery stocks, overfished stocks, etc.). The team noted that while bycatch limits may be evaluated for some stocks in conjunction with development or revision of rebuilding plans, there is no separate action for other stocks. Total catch for many stocks is close to the OFL already and any increase in removals by the groundfish fishery could drive total catch above the OFL.

The size and sex composition of bycatch should also be considered in any further analysis. This consideration has previously been noted by the team, particularly in relation to the relative rate of removals under the snow crab COBLZ limit; differential exploitation by size class could result in removals in excess of the general exploitation rate imposed by the aggregate limit.

Team members questioned whether there is a trend in the ratio of bycatch as a function of the OFL over-time. If this is increasing then there is an implicit allocation issue. For some stocks (e.g. around Adak), groundfish bycatch could represent a conservation concern. Bycatch in the Northern District was also

highlighted as it does not currently accrue towards any stock. It has already been recommended that the BBRKC authors investigate revising stock boundaries to potentially include parts of the Northern District.

### **Research priorities**

The team discussed pertinent research priorities to recommend to the Council in this annual cycle. The CPT would like more information and understanding of how suggestions from the CPT are incorporated into the final list. The Team suggested that assessment authors include a list of research priorities in the individual assessments for improving the assessment and to better inform the most critical research needs.

These will be compiled into an internal list of research priorities that could be circulated and retained for review at the next meeting in conjunction with this annual review. For the current cycle however, the team discussed research needs and identified the following items as being of the highest priority for informing crab management.

#### I. Specific research needs for assessment purposes:

1. Catchability. Management advice for crab stocks relates directly to estimates of the size of the stocks concerned. Research to refine the estimates of survey catchability,  $q$ , used to infer absolute rather than relative abundance would substantially improve the quality of management advice.
2. Handling mortality rate. Improved understanding on the post-release mortality rate of discarded crab from directed and non-directed crab pot fisheries and principal groundfish (trawl, pot and hook and line) fisheries is required. The magnitude of post-release mortality is an essential parameter used in the determination of total annual catch limits used to evaluate overfishing and in stock assessment and projection modeling.
3. Research towards developing a quantitative female reproductive index for the surveyed BSAI crab stocks. The current stock-status assessment process for surveyed BSAI crab stocks uses the estimated mature male biomass at the presumed time of mating as the best available proxy for fertilized egg production. Research on mating, fecundity, fertilization rates, and, for *Chionoecetes*, sperm reserves and biennial spawning, is needed to develop annual indices of fertilized egg production that can be incorporated into the stock assessment process and to model the effects of sex ratios, stock distribution, and environmental change on stock productivity. Priority stocks for study are eastern Bering Sea snow and Tanner crabs and Bristol Bay red king crab.
4. The Tier 4 OFL control rule for crab stocks involves basing  $F_{OFL}$  on the product of natural mortality and a parameter,  $\gamma$ . Research to refine the basis for setting  $\gamma$  is needed, including: (a) simulation testing of methods to estimate  $\gamma$  based on only survey data, (b) calculation of  $F_{35\%}/M$  and  $F_{MSY}/M$  for generic crab-related life histories, and (c) construction of the distribution for  $F_{MSY}/M$  using data for crab fisheries worldwide.
5. Bycatch. A synthesis is needed to estimate the cumulative impact of bycatch on all crab stocks.
6. Natural mortality. Explore life history and model based natural mortality estimators for BSAI crab stocks. This includes developing longevity-based estimators of natural mortality for BSAI crab by determining maximum age or maximum lifespan post terminal molt, tag-recapture, and integrated modeling.



## II. Broad-based research concerns:

1. Non-recovering stocks. A pressing issue is why depleted stocks have failed to recover in the absence of fishing (e.g., Pribilof Island blue king crab and Adak red king crab). Research into all life history components is needed to identify population bottlenecks, an aspect that is critically needed to develop and implement rebuilding plans.
2. Identify and assess production periods that may represent recruitment shifts across BSAI crab stocks.

### ***New business***

Diana Stram reviewed the timing of amendments and analyses for the Crab FMP (Table attached). There are three rebuilding plans in need of revision (or development): EBS snow crab, Pribilof Islands blue king crab, and EBS Tanner crab. The ACL amendment must also be done in this next year. All four analyses must be completed for the start of the 2011/12 crab fishing year, which means that final action by the Council must be taken in 2010. In order to allow for sufficient time to review and comments on these draft analyses, the CPT has scheduled a special winter meeting in March 2010. Items for that meeting will include preliminary review of the rebuilding amendment analyses and ACL analysis, EFH review and recommendations by species, and update on trawl survey data revisions.

The team established dates and locations for their 2010 meetings as follows:

March 29-April 1: AFSC Seattle

May 10-14: Girdwood, AK

September 14-16: AFSC Seattle

The meeting adjourned at 5pm on Tuesday the 15<sup>th</sup>. The CPT met jointly with the BSAI and GOA groundfish plan teams on September 16<sup>th</sup> to discuss issues of common interest (EFH, HAPC and ACL). Minutes from that meeting are contained in a separate report.

**NPFMC CRAB PLAN TEAM**

**DRAFT AGENDA (SEPTEMBER 2, 2009 VERSION)**

**September 14-16<sup>th</sup> 2009**

<b>A. Crab Plan Team</b>		
<b>Monday September 14</b>		<b>Traynor Room</b>
8:30	Introductions	Introductions, Additions to agenda and approval of agenda, Review and approval of May 2009 minutes
8:45	Workshop report	Review major findings of assessment workshop, TORs for assessments
9:30	Trawl survey	Review of 2009 survey, results of survey recalculations, BSFRF update on tow comparison
10:45	<i>Break</i>	
	Stock Assessment Review:	
	Final SAFE Report	
11:00	EBS Snow Crab	Review final assessment results, recommendation on OFL and discussion of rebuilding plan
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12:15	<i>Lunch</i>	
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13:00	BBRKC	Review final assessment results, CIE review results
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14:00	EBS Tanner	Review final assessment results
14:30	St Matthew BKC	Review final assessment results
15:00	PIRKC	Review final assessment results
15:30	PIBKC	Review final assessment results, update on rebuilding plan revisions
16:00	<i>Break</i>	
16:15	PIGKC	Review final assessment
16:45	Adak RKC	Review final assessment
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<b>Tuesday September 15</b>		<b>Observer Training Room 1055</b>
8:30		Finish assessment reviews (as necessary)
9:00	Economic SAFE	Update, draft Economic SAFE
9:30	SAFE Report Finalization	Review OFL recommendations, Report writing, Report finalization
10:45	<i>Break</i>	
11:00	SAFE Report Finalization	continue
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12:00	<i>Lunch</i>	
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13:00	Trawl Sweeps	Review boundaries of St. Matthew HCZ, discuss NBSRA, CPT comments
14:00	Bycatch of crab in groundfish fisheries	Review Council staff discussion paper of bycatch by species and gear type in groundfish fisheries in relation to OFLs (and possible ACLs), CPT recommendation to Council
15:00	<i>Break</i>	
15:15	Research Priorities	Review and revise
16:15	New Business	New business, plan for Winter 2010 (ACL analysis review) CPT mtg, May 2010 mtg <i>Adjourn CPT-only meeting: Note following day mtg with groundfish plan teams</i>
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<b>Wednesday September 16 (Joint meeting with Groundfish Plan Teams)</b>		<b>Traynor Room</b>
8:30	Introductions	Introductions, joint agenda approval, Council/RO activities upcoming, Review instructions to authors (ACL assessment removals, EFH by

9:30		species, other), Role of economists on Council plan teams
10:45	<i>Break</i>	EFH 5-year review process
11:15		HAPC Review of HAPC criteria; recommendations for rating/proposal review
12:00	<i>Lunch</i>	
13:00		ACLs Report from groundfish and crab analyses on progress towards application of uncertainty corrections
14:00		Proposed alternative ABC control rules for crab; direction for groundfish
15:00	<i>Break</i>	
15:15	<i>After mtg</i>	ACLs (cont) *BBQ (or other event TBD)*

Summary of forthcoming amendments to Crab FMP related to rebuilding analyses and ACL requirements  
(Prepared by NMFS and NPFMC staff for CPT discussion)

<b>Month</b>	<b>ACL analysis</b>	<b>Snow crab rebuilding analysis</b>	<b>Tanner crab rebuilding analysis</b>	<b>PIBKC rebuilding analysis</b>
September 2009	Plan teams review and recommend alternatives	Start 2 year clock to implementation fall 2011/12	Start 2 year clock to implementation fall 2011/12	Start 2 year clock to implementation fall 2011/12
October 2009		Council – staff tasking begin analysis with the NMFS recommended measures as a start for analysis	Council – staff tasking begin analysis with the NMFS recommended measures as a start for analysis	Council – staff tasking begin analysis with the NMFS recommended measures as a start for analysis (based on CPT alternatives)
October – February	Conduct analysis	Conduct analysis	Conduct analysis	Conduct analysis
Feb or March – CPT meeting	CPT review analysis	CPT review analysis	CPT review analysis	CPT review analysis
April-May	Revise analysis with CPT comments/recommendations	Revise analysis with CPT comments/recommendations	Revise analysis with CPT comments/recommendations	Revise analysis with CPT comments/recommendations
June 2010	Council initial review	Council initial review	Council initial review	Council initial review
October 2010	Council-final action	Council-final action	Council-final action	Council-final action
October 2010– March 2011	Secretarial approval of FMP amendments			
May 2011	Stock assessments incorporate new amendments			
June 2011	SSC/Council review			
September 2011	OFL/ACL setting for 2011/2012 fishery			