

Minutes of the Joint Plan Teams for the Groundfish Fisheries of the Gulf of Alaska (GOA) and Bering Sea Aleutian Islands (BSAI)

November 2009

**North Pacific Fishery Management Council
605 W 4th Avenue, Suite 306
Anchorage, AK 99501**

The Joint meeting of the BSAI and GOA groundfish Plan Teams convened Monday, November 16th at 9:00 am at the Alaska Fisheries Science Center in Seattle, Washington.

Members of the Plan Teams present for the meeting included:

Loh-Lee Low	AFSC REFM (BSAI chair)	Jim Ianelli	AFSC REFM (GOA co-chair)
Mike Sigler	AFSC (BSAI Vice chair)	Diana Stram	NPFMC (GOA co-chair)
Kerim Aydin	AFSC REFM	Sandra Lowe	AFSC REFM
Lowell Fritz	AFSC NMML	Jeff Fujioka	AFSC ABL
David Carlile	ADF&G	Jon Heifetz	AFSC ABL
Alan Haynie	AFSC REFM	Mike Dalton	AFSC REFM
Jane DiCosimo	NPFMC (Coordinator)	Cleo Brylinsky	ADF&G
Yuk. W. Cheng	WDFW	Tom Pearson	NMFS AKRO Kodiak
Brenda Norcross	UAF	Nick Sagalkin	ADF&G
Mary Furuness	NMFS AKRO Juneau	Paul Spencer	AFSC
Grant Thompson	AFSC REFM	Leslie Slater	USFWS
Dave Barnard	ADF&G	Nancy Friday	AFSC NMML
Leslie Slater	USFWS	Yuk. W. Cheng	WDFW
Dana Hanselman	AFSC ABL	Ken Goldman	ADF&G
		Bob Foy	AFSC Kodiak
		Sarah Gaichas	AFSC REFM

Steven Hare (IPHC, GOA team) was unable to attend.

Members of the public, State and agency staff in attendance for all or part of the meeting included:

Agency: Dana Seagars, Anne Hollowed, Jennifer Stahl, Kalei Shotwell, Lisa Kafferman, Karla Bush, Diana Evans, Steve Whitney, Steve Barbeaux, Karla Bush, Craig Faunce, Lisa Rodderick, Scott Miller, Steve Davis, Bill Wilson, Neal Williamson, Stephanie Zador, Patrick Russler, Dan Nichol, Peter Munro, Bob Lauth, Taina Honkalehto, Pat Livingston, Jack Turnock, Lou Rugolo, Tom Wilderbuer, Teresa A'Mar, Phil Rigby, Kaja Brix, Chris Lunsford, Beth Matta, Buck Stockhausen, many others

Public: Frank Kelty, Jim Hamilton, Dick Curran, Tory O'Connell, Leonard Herzog, Kenny Down, Julie Bonney, Gerry Merrigan, Jan Jacobs, Donna Parker, Dave Wood, Tom Gemmell, Brad Warren, Paul Peyton, Lori Swanson, John Gruver, John Gauvin, Ed Richardson, Paul MacGregor, Anne Vanderhoeven, Jon Warrenchuk, Karl Haflinger, Mike, Jan Jacobs, Tim Tuttle, Gary Stauffer, Jim McManus, Ed Melvin, Brent Paine, Donna Parker, Frank Kelty, Ron Rogness, Glenn Reed, Brad Warren, Paul Peyton, Tim Thomas, Dave Fraser, Neil Rodriguez, Larson Hunter, Mike Szymanski, many others.

1. Introduction

The attached agenda was agreed upon for the meeting.

Council actions: Jane DiCosimo briefed the teams on the Council's preferred alternative for BSAI skate management, noting that next year recommendations for separate specifications will be needed for BSAI skates for 2011/2012.

EFH review: The minutes for each team will include a separate section on EFH by species and any recommendations. Diana Evans provided an overview of the task for plan teams in their reviews of the revised FMP text by species as well as comments on process. While sablefish was discussed jointly the specific minutes and recommendations for sablefish are contained primarily in the GOA EFH discussion section and noted in the BSAI table.

Update on the Plan Team Economists meeting: Per discussion at the September Joint Plan Team meeting, the economists on all Council plan teams met to discuss improved means of working together and improving their contributions to their respective plan teams. A report from that meeting is appended to this report.

SAFE reports and summaries: The teams discussed report summaries, minutes, and summary assignments. The teams agreed that all outstanding requests to authors will be consolidated in a separate section in the November minutes of each team.

2. Sablefish

Dana Hanselman provided an overview of the sablefish stock assessment. A modeling/data workshop is planned for winter 2010.

The teams discussed the similarities in trawl, longline and IPHC survey trends. This is the first time the assessment has evaluated the CPUE of sablefish in IPHC survey data. Team members requested clarification on why the CIE panel recommended retaining commercial CPUE. Dana clarified that the panel indicated the dataset was substantial and available so there did not seem much utility in disregarding, noting that the large increase in RPW had limited impact on results, given that it is only one of 6 indices in model with similar weighting applied to each. It was suggested by the CIE that perhaps the calculation of fishery RPW could be improved by using GLMs to capture effects of temporal and spatial changes in effort.

The model is fitting longline survey ages better now than in the recent past years. Trends in fishery logbook CPUE and observer data agree everywhere but the AI. Notable areal trends in fishery CPUE are that the CPUE in the Bering Sea has gone up over last 5 years, and that while the trend is similar in WGOA, logbook CPUE is higher than observer CPUE. Contribution of 4-9 year old to the fishery catch is decreasing. CGOA fishery and observer CPUE are both down.

Concerns were expressed regarding the reliance on only a few year classes for spawning. The 2000 year class is contributing 23% to spawning biomass and the 1997 year class contributes 12% to spawning biomass.

Members of the public noted that the current survey stations were initially picked by Japanese fishing masters as habitat for large sablefish. The commercial fishery is seeing larger fish, and

there is concern that since these stations will have the biggest fish they will mask any recruitment. Authors noted that this is true but likewise these stations will be the last to show the decline of fish. Likewise, if there were many large fish occupying hooks, it could mask smaller fish, but there is a decline in fish of all sizes. The authors also noted that the models account for the fact that year-classes are not seen immediately by the survey, but will show up as they become susceptible to the gear. Also there were previously additional stations that were chosen randomly and compared to the standard stations to see if there was a bias and there was no significant difference when compared to each other. 20 random stations were selected and showed no significant difference when compared to the closest Japanese stations.

Hook occupancy on the longline survey has been low in recent years. This suggests there is less concern that larger sablefish are outcompeting smaller fish at these stations as many baited hooks are retrieved. Another consideration is that even though the longline stations were originally chosen in areas of high sablefish abundance, the stations are set perpendicular to the slope from depths of 200-1000m rather than parallel to the depth contours (as with fishing). Therefore, multiple habitats at all depth ranges are sampled at each individual station.

The teams expressed continued concerns regarding whale depredation and the lack of information on sperm whale abundance. Staff of NMML noted that there is no update on sperm whale population estimates given a lack of funding to estimate abundance. Thus there are no PBRs defined for sperm whales.

Members of the public requested suggestions on how to explain the upward trend of industry CPUE. This appears to be a result of local knowledge of the best spots with fishermen still catching fish even in a downward trend. The fishery is currently focused on two year classes and those year-classes are producing a large bump in CPUE.

Members of the public asked if landings information could be used for additional information. The authors noted that this was discussed at the CIE to see if size gradings could be used to evaluate year classes. However, this was attempted in the late 90s and it proved impossible to line up processor size gradings. Those categories are not discreet, but overlap. However with new electronic recording it might be possible. The authors were unsure how this would give a better indication of year class strength, in comparison to observer collected data, but could be looked at to see if some large discrepancy exists. A better standardization of size grading is needed, but possibly observer sampled lengths in conjunction with size gradings could be correlated with processor size gradings.

The ABC for 2010 =5% decrease from 2009. The teams noted that this may continue to decline with no additional new year classes present.

The authors plan to hold a workshop in winter 2010 to address CIE suggestions and industry concerns which will include but not be limited to spatial models, revisions to the fishery and survey indices, and potential implementation of SS3.

The team appreciated the look at the IPHC survey sablefish CPUE and other additional indices and how these correspond closely to the trends seen in the model. The incorporation of economic data was good. The Teams support the modeling workshop idea. The authors did a good job demonstrating low recruitment.

The teams expressed confidence in the model and in the author's recommendations and commended him for adequately supporting his recommendation and for the use of supporting

evidence from multiple sources. The teams accept ABCs and OFLs as recommended and apportionments for 2010 and 2011. The Teams note that it is unlikely that specifications will increase in the near future absent additional above-average year classes..

Requests for the next assessment:

1. The author should contact the IPHC about getting them to collect length and weight data for sablefish on their surveys, and to evaluate the data to see if the distribution of those data are similar to the longline surveys.
2. Evaluate additional statistical methods for consideration of whale depredation issue.
3. Evaluate recalculating the RPW in the BS due to potential for inflation of biomass in that region from the extrapolation from a limited number of stations.
4. Include additional information in assessment on prohibited species bycatch, particularly of golden king crab in the pot fishery.

2. Grenadiers

Chris Lunsford presented updated information on grenadiers. This presentation was prepared by Dave Clausen who participated in the meeting by phone. Currently these species are included in the “nonspecified” category by the North Pacific Fishery Management Council. Full assessments were presented in 2006 and 2008 which included a recommendation to move grenadiers into the Fishery Management Plan (as a managed species; alternatively, grenadiers could be included in a new ecosystem category). Since ages are now available, there is potential to move giant grenadier to Tier 4 if they were included in the FMP.

Grenadier catches are significant and all are discarded. For example, their catch level in the Gulf of Alaska is only slightly less than sablefish catches. The primary species caught is giant grenadier and most of the fishery and survey information is for this species. Species caught in much lower numbers are Pacific and popeye. An update of the assessment uses the Tier 5 rule to recommend ABC values for the Eastern Bering Sea, Aleutian Islands and Gulf of Alaska. The update of the Tier 5 ABC values uses a new estimate of natural mortality provided by Dave Clausen and Cara Rodgveller. Current catches are substantially less than these ABC values. The reasons for moving grenadiers into the other species classification are that they figure prominently in the ecosystem based on their numbers, and they have economic potential though not generally targeted by any Alaska-based fishery.

Jane DiCosimo requested that the authors revise their management recommendation so that it conforms to the proposed classification scheme proposed by the NPFMC to implement groundfish Annual Catch Limits. The “other species” category, which the authors previously recommended for grenadiers, will disappear under the new rules. In response, Dave Clausen recommended classifying the three main species (Pacific, popeye and giant grenadiers) as “in the fishery,” while the remaining grenadier species would be moved to the Ecosystem Component category as an “other grenadier” complex. The team concurred with that recommendation.

Recommendation to Include Grenadiers in the FMPs

Grenadiers are presently listed as “nonspecified” and thus are not managed in either the BSAI or GOA groundfish FMPs. The teams reiterated their recommendations that grenadiers should be managed under catch specifications. Previously, the teams concurred with the lead author that it would be more appropriate for grenadiers to be managed under the “other species” category. The

“other species” category is defined by the NPFMC as species that have “only slight economic value and are generally not targeted upon, but which are either significant components of the ecosystem or have economic potential”. In contrast, “nonspecified” species are a “residual category of species and species groups of no current or foreseeable economic value or ecological importance, which are taken in the groundfish fishery as accidental bycatch and are in no apparent danger of depletion” and for which “virtually no data exists (that) would allow population assessments”. Based on these definitions, grenadiers should be managed similarly to the groups included in the “other species” assemblage; however since NMFS guidelines for implementing annual catch limits no longer permit management of disparate species or groups under an assemblage, the teams have recommended that the component groups and grenadiers be managed under separate ACLs (squids and octopus were also recommended for consideration under a new ecosystem component category). Because of their abundance on the continental slope, giant grenadier are of great ecological importance in this habitat, and they also hold economic potential. In addition, considerable information now exists on giant grenadier that can be used for population assessment. This includes a technique to assess the age structure of grenadiers. The information is such that we may be able to move grenadiers from tier 5 to tier 4 in future assessments. Therefore, the teams are very supportive of the proposal to move grenadiers from the “nonspecified” to a managed group and recommend that this proposal be implemented.

3. Steller Sea Lion survey update

Lowell Fritz presented an overview of the results of the 2009 Alaska aerial survey and the status of the western distinct population segment (DPS) and eastern DPS. The draft report is scheduled to be presented to the Council in conjunction with the NMFS Protected Resources report in December. He noted that NMFS staff were not able to fly out to western AI in 2009; thus results are summarized from photographs taken in 2008 to characterize that area. There is no estimate of uncertainty of sampling error.

Questions were posed as to why western rookery numbers are so low but declining while the eastern rookery numbers are much higher and increasing. The combination of the two areas led to a 1% increase overall that is statistically not significant. It may be that movement early in the seasons affected non-pup counts last year (2008). There is no indication that western trends are indicative of movement between rookeries (no branding). Telemetry has not yet been used for adults, just for pups and juveniles for only one year, so results are not yet available. Observed trends are not indicative of large scale movements. Internal production is most likely reason for observed changes.

Trends were also presented for Russian stocks. The Asian stock is increasing but the western stock (i.e., stock more genetically similar to WAI) is not recovering. Team members questioned the cause. The decline since 1982 seems to reflect the observed decline of AI stocks. There are no rookeries in Eastern Kamchatka and no observed increase in the Russian stock.

4. Halibut discard mortality rates (DMRs)

Gregg Williams summarized the appendix to the SAFE Report, which provides IPHC staff recommendations for discard mortality rates (DMRs) for GOA groundfish fisheries and BSAI CDQ and non-CDQ groundfish fisheries for 2010-2012. The rates are set every three years, based on the average rate for the past ten years. This is the first time that the BSAI CDQ rates follow this method because ten years of CDQ fishing rates are now available. The methodology previously was approved by the SSC. The Team accepted the IPHC staff recommendations.

The teams also requested that, in the future, comparative rates be included with the old rates in the table when modifications are made.

5. Ecosystem Considerations

Stephani Zador and Kerim Aydin gave an overview of new contributions to the chapter since September 2009. The website has a new design, and the data and contributions will be updated. Contributions to the chapter will be available in December, and time series data will be more accessible.

Highlights of the new contributions and a discussion of area-specific trends as relevant are contained in the introductions to each of the SAFE report.

Kerim provided an overview of changes to the Ecosystem Assessment since September 2009. Time series were presented in an updated format reflecting comments provided by the Plan Team in September. For the EBS and GOA, all species included in food web models (Aydin et al. 2007) were aggregated into 12 guilds by trophic role. For each guild, time trends of biomass are presented for 1977-2009, updated with assessments presented in the current SAFE report. Catch and exploitation rate (catch/biomass) are presented for guilds with exploitation rates exceeding 0.0001. Differences in time series data availability led to different methods for EBS and GOA ecosystem guild analysis. EBS biomass trends are summed stock assessment model estimates or scaled survey data, where available, for each species within the guild. If neither time series is available, the species is assumed to have a constant biomass equal to the mid-1990s mass balance level estimated in Aydin et al. (2007). Inconsistencies in the GOA trawl survey time series in depth and area surveyed made ecosystem model fits to trends more reasonable than summing scaled survey data. The GOA ecosystem model was forced by stock assessment model estimates where available for each species within the guild, and fit to survey time series, catch data, groundfish diet data, and the mid-1990s mass balance for all other species. In both regions, catch data were directly taken from the Catch Accounting System and/or stock assessments for historical reconstructions. Pie charts indicate the relative contribution of each data type to the average biomass within each guild. For 2010-2011 projections, the stock assessment authors' recommended catch and estimated biomass time series were used in both regions.

Apex predators are declining in EBS due largely to a decline in Pacific cod. Pelagic foragers are also down due to pollock's low and decreasing biomass. Other key trends are summarized in the Ecosystem Assessment. Any updates from Plan Team will be incorporated for the final draft. Questions from the public included: Do we call fish going to meal discards? No, those are under retained. Are we tracking ocean acidification? Not yet, so far we have only one estimate in each Alaskan sea, we are trying to get info, and might be able to track it in the future. The Seward line is most likely to be measured first for Ocean Acidification monitoring in the GOA.

6. Pacific cod

Grant Thompson presented a joint review of the cod assessments for both BSAI and GOA. The teams spent considerable time discussing use of the age data in the models for each area. Concerns were expressed that there might be a serious bias in age data, which may not be constant across ages. It is not currently possible to estimate bias within the model, except iteratively. Therefore bias correction is incorporated into the ageing error matrix. Concerns were expressed over how this is accomplished. One alternative could be to use only length-based models. One of the issues noted with using the age data is that, while the ageing error variance is

externally estimated, the bias correction is based upon the best fit of the model. However, the cohort variation in growth seems reasonable, but likely interacts with this bias correction. This is the first time cohort-specific growth and ageing bias has been included in the model.

The teams discussed the pros and cons of using the age data versus defaulting to a length-based model only (noting that a pure length-based model was not available in the GOA). There is a high correlation between observed and estimated size at age 1 in the BSAI but not in GOA (however, the GOA model does achieve a high correlation between observed and estimated size at age 2). Size-at-age data are included in models B1 and B2. Plan team members suggested that it is inconsistent to use some, but not all, of the age data.

Comments from the public suggested that ageing bias may be better for mean size at age data than for composition data. Modes present in survey data often fail to match observed size at age data. However, the model-estimated sizes at age can match the modes if bias is included. It was noted that the ageing error variance may be confounded with the ageing error bias. The ageing-error variance is included, but unadjusted after estimating the bias iteratively. This raises the possibility that the ageing error variance or the bias estimates may be incorrect.

Individual model choices, recommendations for the subsequent assessment and specifications for BSAI and GOA are contained in the individual team minutes.

Additional comments regarding models and OFL and ABC recommendations are summarized in the minutes of each Plan Team.

Draft Agenda November 2009 Groundfish Plan Teams**Draft Agenda and Schedule**

	Joint Groundfish Plan Teams Traynor room 2076 AFSC	BSAI Groundfish Plan Team AFSC Traynor Room 2076	GOA Plan Team Observer Room 1055
Monday Nov 16th	9am Introductions, adoption of agenda, Council actions, Review of report summaries, minutes, assignments EFH FMP review plan Sablefish Grenadiers		
	1pm 2009 SSL survey update Halibut DMRs Ecosystem assessment report		
		3pm Greenland Turbot	Skates, Atka mackere
Tues Nov 17th		9am Pollock: Aleutian Islands Bogoslof EBS	Arrowtooth flounder, flathead sole, shallow- water flatfish
		1pm Atka mackerel Off year reports other rockfish, POP, Northern rockfish, red rockfish	Deep-water flats (Dover sole), rex sole, demersal shelf rockfish thornyhead rockfish
Wed Nov 18th		9am Yellowfin sole, rock sole, flathead sole, Alaska plaice, arrowtooth flounder, other flatfish	GOA pollock
		1pm Skates, sharks, sculpins, octopus, squids	Pacific ocean perch, northern rockfish, shortraker, rougheye, other slope rockfish, pelagic shelf rockfish (PSR)
Thurs Nov 19th	9am Pacific cod		
		1pm Table preparation, report writing report finalization	Other species: sharks, squid, sculpin, octopus
Fri Nov 20th		9am Continue as needed	Table preparation, report writing report finalization

NOTE: The above agenda items may not be taken in the order in which they appear and are subject to change

Plan Team Economists Workgroup Meeting

November 13, 2009

AFSC Seattle

November meeting attendees

Mike Dalton (GOA Groundfish)

Brian Garber-Yonts (Crab)

Joshua Greenberg (Crab) – via telephone

Alan Haynie (BSAI Groundfish)

Scott Miller (Scallop)

In September, the Joint Plan Team heard discussion from Plan Team economists about ways for economists to work together to improve their contributions to the Plan Teams (see text from the September meeting minutes at the end of this document). Economists serving on all four of the NPFMC's Plan Teams held an all-day meeting on November 13, 2009 prior to the November Groundfish Plan Team meetings to expand on what this ad hoc group will do over the next year to most constructively contribute to the Plan Team process.

This is an informal group which is expected to evolve over time. The group agreed to concentrate its efforts on the following three areas:

1. Directly provide economic information important to the Plan Team process.
 - a. Make recommendations to stock assessment authors on how economic information from the Economic SAFE might be included in each species stock assessment.
 - b. Examine key regulations that affect fisheries (e.g., rationalization, area closures, whale predation). Economists will work with stock assessment scientists to best determine how to incorporate this information into stock assessments.
 - c. Help to evaluate how industry might react to ABC choices. For example, changes in ABC/TAC have the potential to lead to fishing effort being shifted by fisheries into other target species and this should be analyzed if significant ABC changes occur.
 - d. Identify current trends in
 - i. Markets / prices
 - ii. Processor or fishery consolidation
 - iii. Permit or quota prices, where applicable and where information is available.
 - e. Conduct additional economic analysis with Economic SAFE data. The group of plan team economists would serve as a peer-review body for this type of analysis.
 - f. Provide an opportunity for stock assessment authors to raise questions about economic considerations of fisheries.

2. Propose and discuss the methods that are used in economic analysis to better inform the plan team process
 - a. Examine and provide on-going peer-review input for economic documents for inclusion in the Economic SAFE reports. For example, other economists will provide collaborative input into Brian Garber-Yonts's development of the crab SAFE.
 - b. Provide peer-review and discussion body for the examination and consideration of economic methods for application to problems.
 - c. In the future, provide a forum for the consideration of the role of non-economic social sciences in the Plan Team process.

3. Provide resources to help non-economists on the plan team and elsewhere to better utilize and understand economic data in the Economic SAFE and other economic information that is commonly presented in the Council process.
 - a. Write an overview of how to better understand the role of economics in the plan team process
 - b. Work with Plan Team and others to help ensure that fisheries managers have the knowledge and tools available to interpret economic data.

Provisional Group Calendar

The group has proposed the provision calendar for the group's activities.

- *January: proposed workgroup planning meeting.* Workgroup members will meet to discuss plans for the year and will communicate the results to Plan Team chairs. Additionally, prior to this meeting we will make a formal request to stock assessment authors whether there are particular economic issues for which they would like assistance.
- Spring plan team meetings – members will contribute as appropriate
 - February – Scallop PT
 - March 29, Crab PT 1
 - May 10, Crab PT2
- *Early summer (June?) workgroup call or meeting.* The group will review current work and make plans for September presentations.
- *September –Joint Plan Team Meeting.* Workgroup members will present output to the Joint and separate plan teams, as relevant.
- *November Groundfish Plan Team Meetings.* Information from the September plan team meeting would be revised and/or expanded.

Current Contributions

Members of the workgroup are currently working on the following plan team related work:

- Contributions to the Economic SAFE
- Vector auto-regression (VAR) Groundfish price predictions
- Decomposition of changes in revenues in response to Joint Plan Team Input.
- Crab rebuilding analysis
- Crab Economic SAFE in development
- Members of group working with crab stock assessment authors to consider how economic content might potentially be considered in the incorporation of management uncertainty into ACL/ACT.

Notes from the September Joint Plan Team Minutes

Role of economists in Council plan teams

Mike Dalton and Alan Haynie presented a proposal from the current plan team economists for an approach to incorporating greater socioeconomic analysis into the plan team process and reports. Noting that a substantial quantity of social and economic analysis is performed in the course of Council decision-making, the SAFE documents themselves are comprised almost entirely of stock assessment material. In response to SSC recommendations made about the 2007 Economic SAFE, a variety of directives in both the BSAI Crab and BSAI/GOA Groundfish FMP's, and

NMFS FMP and national standards guidelines, greater development of a socioeconomic fishery evaluation component of the respective SAFE documents is needed. Although this has been recognized for some time, progress has been limited due to the time constraints in the plan teams' schedules. There is also a lack of critical mass of social/economic scientists on any one plan team, and lack of specificity in regard to scientific and analytical objectives for fisheries evaluation relative to the biological metrics specified in the stock assessment process. To improve this process, the plan team economists propose that they form a working group to provide guidance to the plan teams on specific economic and social science products to be included in the SAFE documents and to serve as a technical review panel for socioeconomic science in the plan team process. It is anticipated that the ecosystem considerations appendices to the SAFE chapters will be used initially as a model for social and economic analyses to be produced for the plan teams. The working group will meet in November to develop a work plan and schedule for the next year, and will meet periodically as needed to complete analytical and reporting tasks on an annual basis. It is likely that the efforts of the group will be produced for the September plan team meeting, but more consideration will be given to the most effective timing of the group's efforts.