

## Joint Groundfish Plan Team minutes

November 18, 2008  
Alaska Fisheries Science Center  
Seattle, WA

The Joint meeting of the BSAI and GOA groundfish Plan Teams convened Tuesday, November 18th 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	Mike Dalton	AFSC
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		

Plan Team members who were unable to attend included Ken Goldman (GOA Plan Team ADF&G), Sarah Gaichas (GOA Team AFSC REFM), Bob Foy (GOA Team, AFSC Kodiak) and Steven Hare (IPHC).

The Teams welcomed new members Dana Hanselman and Alan Haynie (BSAI, AFSC) Nancy Friday (GOA, NMML), Yuk W (Henry) Cheng (WDFW), Paul Spencer and Mike Dalton (GOA, AFSC). The Teams reviewed changes to the draft agenda. The final agenda is attached.

Members of the public and State and Agency staff in attendance included: Julie Bonney (AGDB), Lori Swanson (GFF), Anne Vanderhoeven (BBEDC), Mike Symanski (FCA), Kenny Down (Freezer Longline Coalition), John Gauvin (Best Use Coop), Donna Parker (Arctic Storm), , Glenn Reed (PSPA), Mark Maunder (Quantitative Resource Associates), Jack Tagart (Freezer Longline Coalition), Jason Anderson (Best Use Coop), Mike Perry (Blue North Fisheries), Bob Lauth (NOAA AFSC), Bill Clark (SSC), Chris Rooper (AFSC), Chris Lunsford (AFSC/ABL), Kalei Shotwell (AFSC/ABL), Tom Casey, Steve Barbeaux (AFSC/REFM), Ed Richardson (APA), Mark Zimmerman (AFSC REFM), Anne Hollowed (AFSC REFM), Gary Stauffer (FSA), Craig Faunce (AFSC/FMA), William Stockhausen (AFSC REFM), Suzanne McDermott (AFSC REFM), Jack Turnock (AFSC REFM), Martin Loefflad (AFSC), Lisa Rotterman (NMFS PRD), Dana Seagars (NMFS PRD), Steve Whitney (NMFS AKR), Tom Wilderbuer (NMFS AFSC), Teresa A'mar (UW/AFSC), Jennifer Boldt (UW/AFSC), Phil Rigby

(AFSC/ABL), Olaf Ormseth (NMFS AFSC), Neal Williamson (NMFS AFSC), Melanie Brown (NMFS AKR SF), Todd Loomis (Cascade Fishing Inc.), Beth Stewart (AEB), Dave Benson (NPFMC), Joe Childers (UFA/WGOAF), Taina Honkalehto (NMFS AFSC)

## **Introductions and overview information**

### **Species Fact Sheets**

Rebecca Reuter requested plan team assistance on review information for species fact sheets. She provided team members individual packets for review and requested any comments and editorial changes by the end of the week.

### **Agenda changes**

The teams noted the following agenda changes and clarifications: Grenadiers is scheduled for GOA only review, the BSAI will start earlier on Wednesday to allow more time to review the pollock assessments. For Pacific cod the teams will meet jointly for the presentations and then adjourn separately to individual teams for specification deliberations.

Grant Thompson reminded the teams that the SSC requested that all assessment authors provide a general description of calculations for biological reference points in the introduction of the SAFE report. In each SAFE chapter, specific details could be provided, if the calculation is done differently. This information used to be included in the introductory chapters and will be included again. Grant volunteered to check with SSC member Anne Hollowed to see if she thought that would satisfy SSC intent.

### **Sablefish**

Dana Hanselman presented an overview of the sablefish assessment. He noted that in the past few years substantive improvements have been made to the model and presented to the teams. However, this year only minor modifications were made in anticipation of changes that are likely to be suggested by the Center for Independent Experts (CIE) review scheduled for 2009. The teams were encouraged by some changes that reduced the model complexity and supported selection of model 3.

#### *Whale depredation:*

The teams discussed the impacts of whale depredation in the longline survey and the fishery. Information was provided on sperm whale depredation in the EGOA and CGOA. Station-specific survey catch rates are presently unadjusted for observed sperm whale depredation. The authors noted that it is difficult to quantify the impact of depredation. An earlier study using survey data estimated a depredation rate but was found to not be statistically significant. Implementing a survey correction factor would necessitate an appropriate fishery correction factor (for CPUE) to account for fishery induced depredation mortality in the calculation of ABC.

The teams commented that the CIE review might provide additional advice on the use and approximation of a correction factor. Dan Falvey commented that it is widely

believed that whale depredation is more common in the survey than in the fishery and thus is biasing survey results by area due to this uncorrected depredation.

Discussion noted that if there are differences in depredation rates between the fishery and survey, this could be tested by looking at the presence of whales in the fishery and comparing the relative differences in absolute presence between the fishery and survey. Chris Lunsford noted that starting in 2007 vessel operators record whale presence during haulback in their logbook records. Preliminary information indicates that catch rates are roughly 5% lower when whales were present. The authors noted that they will continue to look at this in the future. Dana commented that depredation may be highly variable between vessels and events. There is the possibility that while fishery vessels are hit less than survey vessels, when the whales occur the impact on that fishery operation could be greater as the whales would not also be feeding on offal present during survey operations.

#### *Age distribution by area:*

The authors evaluated the mean age in the survey and fishery by region. The proportion varies by area but on average 80% are 10 years old or younger. The western and central GOA areas show the highest proportions of the 1997 year class. The 2000 year class survey abundance has varied by area and over time, peaking in 2003 in WGOA and then later in the EGOA. Dan Falvey asked if there is any concern with the lack of older fish in the western region, and will the CIE comment on the lack of maintenance on broad range age distribution? Dana noted that while this could be a matter of concern, it is also possible that this is a region of recruitment and fish are outmigrating to other regions. The other possibility is that the region is heavily exploited and thus the age structure has been truncated, but that this seems unlikely given the estimates of exploitation by area. Mike Sigler commented that the decline may be due to previous strong year-classes that have aged and now compose a smaller portion of the population.

#### *ABC recommendations*

The teams discussed the current stock status and authors' recommendations for OFL and ABC for 2009-2010. The stock is at 90% of  $B_{40\%}$ . The authors' recommendation for ABC is an 11% decrease in ABC for 2009 from the 2008 value.

The teams discussed the overlap between the survey and the fishery, noting that there is currently a two week voluntary stand-down on the fishery prior to the survey to allow the population to settle out. Mike Sigler commented that previously due to the derby nature of the fishery (prior to IFQs), the survey and fishery did not overlap. The only time there was a fishery during the survey was in 1992.

The team discussed the halibut survey and differences between that and the sablefish longline survey. The Halibut commission does not have a similar stand-down period. The spatial density of stations for the halibut survey is much higher than for the sablefish survey thus the potential for fishery impacts may be reduced.

Dan Falvey requested that the teams recommend the assessment for sperm whales be updated. Chris Lunsford reiterated the importance of updating the sperm whale

assessment given the findings on whale depredation and presence in their current sablefish assessment report. Nancy Friday commented that the sperm whale assessment was updated in 2007 but no estimate was made of minimum population size for PBR (potential biological removal) impacts. Melanie Brown noted that sperm whales are included in the Biological Opinion, which is being completed by the NMFS Alaska Region at this time. The team requests additional information on the level of take that would require some form of fishery closure as the previous sperm whale assessment indicates a high risk from the sablefish fishery due to one whale taken historically.

Mike Sigler commented that the depredation rate should be re-estimated to include four years of additional data collected since 2004. It is possible that there is a potential increase in recent years. There was a suggestion that a model-based random effects approach may be useful to evaluate whale depredation. This would likely increase the uncertainty in the index.

The Teams discussed the influence of aging error on the assessment and suggested that a diagnostic model run which excludes aging error be evaluated. The author agreed to evaluate this.

#### *Apportionment*

Apportioning out the ABC across regions resulted in different trends by area. The EGOA declined by 15-16% while the BS rose by 5%.

The Teams discussed the apportionment strategy, noting the current strategy of giving the survey twice the weight (for apportionments) compared to the fishery CPUE. The Teams have noted that modifications to the apportionment strategy are unlikely to cause a conservation concern but expressed the desire to re-evaluate this if substantive changes are made. In 2007, alternative apportionment strategies were considered but did not result in any modification to this recommendation. The teams requested information from the authors regarding any potential changes observed since last year that would indicate a biological concern. The authors did not believe that there were any apparent changes that would merit modification to the apportionment scheme at this time. Dan Falvey commented that whale depredation could be having a major impact and this would impact apportionment. Jeff Fujioka commented that the relative importance of spawning biomass levels by region are poorly understood. If such information were available, alternative region-specific ABC measures could be refined.

The teams had the following suggestions to the author on sperm whale depredation correction factors and killer whale depredation factors:

- 1-Analyze current sperm whale depredation data and see if there is a statistical effect;
- 2-Analyze survey and fishery data together to evaluate the relative impact of depredation;
- 3-Evaluate differences between depredation in survey and fishery to investigate trends.

Dan Falvey requested that the teams recommend modification in the survey depredation measurement for better estimation of depredation (e.g., using hydrophones to detect presence under the vessel).

The Teams agreed with the author's recommendation for ABC and OFLs for 2009-2010 and apportionments as listed in the assessment.

## **Steller Sea Lion update**

Lowell Fritz provided a presentation on recent survey work on the western stock of Steller sea lions. The survey consists of processing aerial photographs over rookeries and haul outs. Ninety-five percent of sites were surveyed (168 of 173 trend sites). The overall trend since 2004 in Alaska's western population of Steller sea lions is stable or declining slightly. Despite the stability or slight decline observed in the overall western Alaska population, scientists continued to find considerable regional variability in population trends between 2004 and 2008. The percentages listed below are percent changes between years: 1) the eastern Aleutian Islands is the only consistently increasing region (+7%); 2) the central and western Aleutian Islands declined at relatively high rates (-30% and -16%, respectively); 3) the central and western Gulf of Alaska increased between 2004 and 2007, but declined slightly between 2007 and 2008; and 4) the eastern Gulf of Alaska increased by 35%, but likely because of immigration of eastern distinct population segment animals from southeast Alaska.

Members of the public asked about whether differences between areas could be due to movement between areas. Lowell responded this issue could not be addressed without data on individuals from branding. He pointed out that the 2002 count could have been artificially high due to movement, and possible double counting due to the time lag between surveying different portions of the survey area. The Biological Opinion will attempt to answer some of these questions about migration. The teams requested an opportunity to review the Draft Biological Opinion at its joint meeting in September 2008.

## **Ecosystem Considerations**

Kerim Aydin summarized changes from the September 2008 draft of the Ecosystem Considerations chapter. There are 23 updates and 4 new contributions. He also summarized the revised Ecosystem Assessment, which will include 2008 assessment results; therefore, the teams do not have a draft to review. The teams will review the 2008 Ecosystem Assessment at its joint meeting in September 2009, when it reviews the draft Ecosystem Chapter for 2010.

## **Pacific cod**

Grant Thompson presented the BSAI and GOA assessments during the joint meeting. The teams subsequently broke into separate sessions to deliberate on OFLs and ABCs (refer to those minutes for team recommendations). The author summarized the numerous comments that were provided for suggestions to revise the Pacific cod assessments by the BSAI Plan team, GOA Plan Team, SSC, and public. He reviewed the exploratory models that were presented in September 2008.

Grant summarized the models included in the new BSAI and GOA assessments: 1) the SSC reference model (similar to the “exploratory” model from September, but with the lower bound on selectivity width not constraining and other minor changes); 2) the authors’ preferred model (based on the SSC reference model), and 3) additional models (BSAI only) that were suggested by the authors for comparison or requested by members of the public. He noted that, for fisheries with asymptotic selectivity, one suggestion from the 2007 Pacific cod technical workshop was to force one or more fisheries to exhibit asymptotic selectivity. Two procedures that have been used recently to accomplish this had problems.

For the preferred model, the following new procedure was applied 1) determine which fisheries are “major”; 2) create sample-size-weighted, long-term, relative size composition for each gear/season fishery; 3) for each 5-cm size bin 70 cm or larger, rank each fishery in terms of relative size composition; 4) average ranks across size bins 70 cm or larger; 5) repeat for size bins 75 cm or larger, etc.; and 6) select the highest ranked set of fisheries that consistently includes at least one major fishery.

The algorithm resulted in: 1) sets of major fisheries (BS: Jan-May trawl, Jan-May longline, Sep-Dec longline and GOA: Jan-May trawl, Jan-May longline, Jan-May pot) and 2) sets of fisheries with forced asymptotic selectivity (BS: everything except Jan-May longline, Sep-Dec longline, and Jan-May pot and GOA: Jan-May trawl.)

Grant described how he addressed selectivity parameters. Specifications were determined iteratively. He addressed whether some parameters could be held constant, and model selection criteria. He described how he finalized the models and selected the one that is most consistent with recent Team/SSC consensus regarding model structure and stock size/productivity as his preferred model. He then went on to separately summarize the BSAI and GOA assessments.

BSAI Grant reviewed historical quota, catch, and bottom trawl (BT) survey trends. He compared BT survey catch-per-unit-effort (CPUE) vs. longline fishery CPUE, which showed an improved correlation when fishery data were examined seasonally rather than annually and survey data were limited to the stratum where the longline fishery is concentrated. He reviewed the eight models in detail. He reviewed selectivities from the trawl, longline, and pot fisheries and from the BT survey. He reviewed trends in biomass in both the model and the survey, as well as recruitment. He reported that the stock was healthy when comparing fishing rate v. spawning biomass. In developing the author’s recommended ABC, he applied Tier = 3b, the policy that the SSC adopted in December 2007 (if survey biomass trend is downward and biomass is low relative to mid-1980s, but model indicates trend will reverse soon, then keep ABC at current level). He noted that the conditions listed in the SSC policy still exist, therefore the maxABC of 182,000 t (2009) and 199,000 t (2010) was reduced for 2009-2010 to 176,000 t. He noted that another reason to set  $ABC < maxABC$  is that when M is estimated internally (Model C1), the maxABC falls to 158,000 t (2009) and 180,000 t (2010).

GOA Grant provided similar information for the GOA, as described above for the BSAI. He recommended Tier = 3b and recommended an ABC for 2009 of 55,300 t (equal to maxABC) and an ABC for 2010 of 79,500 t (less than the maxABC of 103,700 t). The large increase in 2010 is fueled by the estimated strength of 2006 cohort, which has been observed only once (at age 1) by the 2007 survey. He noted that if the 2006 cohort is only average, then the 2010 maxABC = 57,300 t. The 2010 ABC of 79,500 t corresponds to 2-year stair-step.

During his presentation, Grant (and others) clarified the following points in response to questions from team members and members of the public.

- The asymptotic algorithm was used for the GOA assessment, but gave the same result as the assumption used in the preliminary assessment, namely, that the January-May trawl fishery is the only fishery that should be forced to exhibit asymptotic selectivity.
- Q cannot be estimated in the GOA.
- Two-year-old fish were seen throughout the survey area in 2008; this was confirmed by industry.
- The SSC would likely amend its “ABC rule” policy if the result was higher than the max permissible ABC.
- Grant has not identified a research plan to address the problem of age 2 fish missing from the GOA survey.
- The model’s estimated time trend of age 0+ biomass is close to the survey trend in the GOA, but much higher than the survey trend in the BSAI. This is due to differences in estimated catchability.
- The fit of GOA Model B to the 27+ cm survey abundance underestimated each of the observed data points. This reflects an inconsistency between the survey age and length composition and the survey abundance estimates, as lowering the emphasis on the age and length composition data improved the fit to the survey abundance index.
- The GOA BT survey is unfunded for 2009. NMFS HQ knows how important the survey is to the assessment. AFSC is planning to conduct the survey, pending funds. There was no AI BT survey in 2008. Funding for an AI BT survey in 2010 is also uncertain.

## **2009 Plan Team meetings**

Meeting dates for 2009 are as follows:

September: Joint Plan Team meeting September 16-17; BSAI/GOA Team meetings September 18

November: Plan Team meetings November 16-20

*Items for 2009 September Plan Team discussion:*

The Teams identified a number of topics to schedule for the September 2009 Joint or individual BSAI/GOA Team meetings. These include (in no order of priority):

1. role of economists on the Plan Teams (joint session)
2. reviews of new approaches for modeling sharks, skates, squid, sculpins, and octopus. Including review of data availability and alternative time periods to be used for Tier 6 analysis for other species groups.
3. review genetic information that forms the basis for area apportionments of ABC and management implications (e.g., rockfishes and Pacific cod) with invited participants
4. review fur seal pup survey discussion
5. review Biop (including CIE review)
6. review Ecosystem Report and Ecosystem Assessment
7. review effects of BSAI Amendment 80 and Groundfish Retentions Standards on reporting bycatch/retention in the SAFE reports
8. review weight based apportionments for Atka mackerel (BSAI only)
9. Joint discussion of Skate assessment in BSAI and GOA (time permitting)
10. ACL updates and guidance
11. Discuss preparation of Team minutes

## A. Joint Plan Team Meetings

*GOA team to commence at 9am Monday, BSAI at 2pm*

Tuesday November 18 <sup>th</sup>		Room 2076 (Traynor room)
9:00 am	Introductions, Adoption of Agenda, Council Actions, Review of report summaries, minutes, assignments etc...	
9:30 am	Sablefish	
12:00 pm	Lunch	
1:00 pm	2008 SSL survey update	
1:30 pm	Ecosystem assessment report	
2:00 pm	Pacific cod (with BSAI and GOA spec discussions)	

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## B. Bering Sea/Aleutian Islands Groundfish Plan Team

Monday November 17<sup>th</sup> Room 2076 (Traynor room)

2:00 pm Yellowfin sole, Rock sole, Flathead sole

*Note: Joint Team meetings on Tuesday*

Wednesday November 19<sup>th</sup>

8:00 am Bogoslof Pollock, AI Pollock, EBS Pollock

12:00 pm Lunch

1:00 pm Skates, other species

3:00 pm Atka mackerel

Thursday November 20<sup>th</sup>

9:00 am Greenland Turbot

10:00 am Alaska Plaice, Arrowtooth flounder, Other flatfish

12:00 pm Lunch

1:00 pm Red rockfish, other rockfish

3:30 pm POP, Northern rockfish

Friday November 21<sup>st</sup>

9:00 am Review Halibut DMRs for CDQ fisheries

9:30 am Table preparation, Report writing

12:00 pm Lunch

1:00 pm Report finalization

5:00 pm Adjourn

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## C. Gulf of Alaska Groundfish Plan Team

Monday November 17<sup>th</sup> Room 1055 (Observer training room)

9:00 am Pacific ocean perch, northern rockfish

10:00 am shortraker, rougheye, other slope rockfish, PSR

12:00 pm Lunch

1:00 pm GOA pollock

*Note: Joint Team meetings on Tuesday*

Wednesday November 19<sup>th</sup>

9:00am demersal shelf rockfish, thornyheads

10:00 am Other species: sharks, squid, sculpin, octopus

12:00 pm Lunch

1:00 pm Arrowtooth flounder, Flathead sole, SWF, DWF (Dover sole), rex sole

4:00 pm Grenadiers

Thursday November 20<sup>th</sup>

9:00am Forage Fish, Skates, Atka Mackerel

12:00 pm Lunch

1:00 pm Table preparation, Report writing, other business

Friday November 21<sup>st</sup>

9:00 am Report finalization

12:00 pm Adjourn