

U.S./Canada Pacific Hake/ Whiting Treaty Joint Management (JMC) meeting

DRAFT Minutes: March 16 - 19, 2016 - Vancouver, BC

March 16, 2016

Initial Advisory Panel (AP) meeting

In camera discussions.

Joint Technical Committee/ (JTC)AP meeting

In camera discussions.

U.S. and Canada delegation meetings

In camera discussions.

March 17, 2016

JMC Plenary meeting

Welcome, introductions, review of agenda

Canadian Chair welcomed participants and reviewed the agenda.

U.S. Co-chair announced new US appointments and personnel changes.

Joint Technical Committee report

Nathan Taylor, DFO

Presentation key points included the following (*See PowerPoint for details*):

- JTC membership changes.
- Overview of stock assessment work and findings (survey index, fishery age comps, recruitment).
- Catch time series and analysis of potential bias in time series/ stock assessment.
- Age composition and recruitment reconstruction (model estimates).
 - Q/A: Explanation of 2016 recruitment estimate and uncertainty.
- Spawning biomass and relative spawning biomass.
- Fishing intensity and exploitation rate time series.
- Retrospective pattern of recruitment deviate estimates: shows fishery is dominated by intermittent large cohorts.
- Past management, with realized catches often less than TAC.

Ian Taylor, NOAA

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Presentation continued, with the following key points (See PPT for details):

- Harvest rule predicted catch for 2016 and 2017.
- Two-year forecast indicates catches based on harvest rule would result in decreased spawning biomass, while constant catch streams of less than 440,000 t. result in increased biomass (but uncertainty is large and grows further out in time for future forecasts).
- Projections for alternate harvest rates show little difference in outcomes for harvests between 350,000 - 500,000 t.
- Risk table definitions: estimation issues linked to the dynamic nature of the fishery.
- Risk tables: risks based on fixed levels of 2016 catch and fixed levels of 2016 and 2017 catch.
 - Q/A: The final column in the 2016 table shows 50% probability that 2017 catch is larger than 2016 catch of 928,100 t., if you apply the default harvest rule.
- Spawning biomass decision table: projected outcomes for different fishing rates, based on range of assumptions about the true state of stocks.
- Fishing intensity decision table: probability of fishing intensity under different management actions.
- Projecting individual cohorts: median estimate for 2010 year class is higher than that of the 1999 class; applying the default harvest rule results in a projected population decline such that the number of 2010 fish at 7 years would equal the number of 1999 fish at age-7.
 - Q/A: An estimated 3 billion 2010 fish remain today. The majority of last year's fishery was on that year class. (That projection could be re-calculated based on something other than the default harvest rate).
- The model projects a significant portion of the next fishery would fall on the 3-year 2014 class, so there would be less impact on the 2010 class.
 - Q (JMC-Canada): If there is more uncertainty about the 2010 year class, could we actually be starting at or below the equivalent levels for the 1999 class?
 - A (JTC): There is large uncertainty about the 2010 cohort; you need to look at the implications of alternate status relative to plausibility of that scenario.
- Fishing pressure on the 2010 year class was harder at age 3 and 4 than on the 1999 class, but 2015 catch was lower and estimated peak biomass of both cohorts is about the same.
- Forecasting summary: Estimated median catch limit for 2016 (based on default harvest rule). The stock is likely above spawning biomass target and increasing. Median spawning biomass is estimated to increase with catches up to 440,000 t. There is less than 30% risk of biomass being below target in 2 years at all catch levels. The 2014 class will be extremely influential for 2017.

Discussion

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- JMC-Canada: Were calculations done based on the number of fish instead of weight?
 - JTC: We could calculate catch by age class in numbers, using average weights.
- Q/A: Slide 12 includes 12 years of data.
- AP-Canada: It's very important to break down the analysis between U.S. and Canada catch, as the results would be vastly different. Canada's catch of the 2010 year class is much lower. The treaty is supposed to provide equal access but that's not happening.
 - JTC: Good suggestion, but it would have to be done for next year.
 - JTC: Welcome the suggestions. The U.S. fishery is more focussed on younger fish, and Canadian harvest is smaller. We stand by the MSE (Management Strategy Evaluation) process but hope to move to a next-generation model that can look at spatial variation.

Scientific Review Group report

Michelle McLure, NOAA

Presentation key points included the following (*See PowerPoint for details*):

- SRG reviewed assessment, MSE and survey, with report delivered March 1.
- Recap of key findings on the survey, assessment and MSE; conclusion that overall, this work provides the best available information for managing Pacific hake.
- SRG recommendations on survey, assessment and MSE.
- Overview of recent work (first ever winter survey in Jan/Feb 2016) and priorities for further work, including on methodological improvements in 2016. Analysis of winter survey to be reported in 2017. The plan is to undertake surveys in alternate years, with the intervening years focussed on work aimed at improving understanding of hake biology/ecology.

Discussion

- Q/A: The SRG recommendation includes looking at potential effects of different net sizes (that's part of the work planned for this summer on at-sea methodologically improvements). It's not a problem because it's been ongoing/consistent, but it is known that smaller U.S. net size means the U.S. fishery catches more small age-1 fish.
- JMC-US: Regarding the slow progress on improving spatial modelling, what are the important things to focus on?
 - SRG: Inadequate staff time is a challenge. We can convene the SRG to discuss this before next year if it would be helpful.
- JMC-US: Explain how the MSE works?

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- SRG: The model creates a theoretical population, which can be compared with sampling of the actual population. The model population is imperfect, so the evaluation includes testing outcomes of extreme scenarios to assess the robustness of the model population.
- JMC-Canada: Any findings of the winter survey that stand out?
 - SRG: We found all ages, including 1-year olds, which were spread out (not as “clumpy” as in the summer), and we also found fish in all stages of spawning maturity. We want to try to keep doing it, despite staffing constraints. The survey area covered from Newport, OR to the Mexico border in late January/early February.
 - JMC-US: The Newport blog provides details of the winter survey
- AP-Canada: The AP should discuss how to respond to requests for industry involvement.
- JMC-Canada: Suggest it may be useful for the SRG to look at MSE priorities, maybe with JMC guidance. I wonder about the value of the age-1 index. I don't think the nets issue is large, but is the SRG looking at calibration?
 - SRG: We propose fishing the two nets side-by-side to determine selectivity.
- JMC-Canada: What is the impact on future assessment of having no survey this year, apart from age samples from the commercial fishery? What effects might there be of fishermen selecting for larger sizes?
 - JTC: Time varying selectivity is implicitly included in the model.
 - JTC: NOAA is devoting more effort to making progress on MSEs in general.
 - SRG: We are understaffed, so input from SRG and JMC would be helpful.
 - JTC: Even if we had the staff, it's highly technical work, and will require significant up-front time to develop the tools needed for this work.
- JMC-Canada: Are you looking to use Katarina's model?
 - JTC: It would likely require about 1 FTE working with Katarina for one year.
 - JTC: Agree on the importance of the work, but it will take time.
 - JTC: Katarina's work to develop a spatial operating model would allow exploration of different management for stocks moving around under different spatial distribution scenarios.

AP report

- AP-Canada: AP members are continuing discussions and are not yet ready to recommend a TAC. It is good to see SRG acknowledgement of the net issue. We wish to express appreciation for the work done by Rod Moore and JTC members.
- AP-US: AP members on both sides appreciate the process and opportunity for meaningful input on models/science. It's important to have a science-based discussion at the industry and management level.

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- JMC-US: Stock assessment indicates high abundances so we welcome industry perspectives on why both the US and Canada are not achieving the TAC.
 - AP-US: The US fishery experienced unique oceanographic conditions (warmer than average, with more anomalous temperatures at the sea surface and at depth, and more diffuse feed throughout the water column and the coast). There were fish everywhere but fewer aggregations. The motherships and catcher-processors started May 15, with average or above average CPUE. The others didn't start until June 15. There were good catches in the north and lots of 2010 fish down to the California border. The fall fishery started early September with very poor CPUE, despite heavy effort to find fish to mid/end October. The fish were everywhere but with no meaningful aggregations. Markets were strong for the U.S.
 - AP-Canada: We started last year in May and spent a lot of time searching but did not see any large bodies of fish.
 - AP-Canada: We had several vessels participating. The freezer boats spent a lot of time on the grounds and CPUE was good but they were fishing on dispersed populations. Other boats were finding only small groups that disappeared after one day. The entire Canadian fleet was working together very closely to find fish. This led to cost savings but not better catches. There is skepticism over the strength of the three strong year-classes recently relative to our past experience, with questions about the possible effect of ocean conditions. I don't know if the focus on the 2010 year-class has impacts that are not being picked up in stock assessment. There is concern about future viability if there are no large cohorts.
 - AP-Canada: There seems to have been a decrease in the last three years. There is less volume and we no longer see the past pattern of waves coming in.
- JMC-US: The Canadian fishery report was more encouraging than what you describe.
 - AP-Canada: We need to separate the freezer and shore-side vessel reports, as they are very different. There were some omissions in that report.
- AP-US: We scrambled to find alternate markets (Ukraine/Russia), but the US report was a good summary of what we experienced.
- JMC-US: Can you further expand on the seasonality of the Canadian fishery.
 - AP-Canada: The fishery was from mid-May to mid-October. It was a good year overall, but it required a lot of effort. We never found a patch bigger than a mile and when we did, everyone went on it. We started in Juan de Fuca in the shallows and pushed north all the way up to Queen Charlotte Sound.
 - AP-Canada: For the Fraser trawler, we started later than usual (mid-May) and went to mid-October. We had a very good year, despite a couple slow spots.
- JMC-US: Any sense of market demand/price for 2016?
 - AP-US: Hard to say — probably neutral, but we are less pessimistic than last year.

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- AP-Canada: We tried unsuccessfully to fill our plant all year. We will know more about 2016 markets after the Brussels Seafood Show in late April.
- AP-US: No concern about our market demand for this year.

JMC comments

- JMC-Canada: It is clear from the presentations that we have been managing hake sustainably, with a very good science basis. There will always be questions, but it is good to address improvements. We are all challenged by resources, but we urge the continuation of the work that has been started, with guidance from the JMC on how to make progress on the issues that we have been wrestling with (e.g. if adherence to the F-40 rule would result in deterioration of the population, should there be further work on whether to review that rule). To recap, our high-level objectives are: 1) To manage with the best available science (we're doing that); 2) To maintain a healthy stock and spread out harvest of strong cohorts; 3) Management that promotes the best long-term benefits; and 4) Management to ensure that both countries benefit. As noted earlier, Canada has harvested just 30,000 of the 2010 cohort up to 2015. We don't know the impact of fishing on age-2 fish. We want to see the spatial model to improve the probability of achieving our TAC, and we want a precautionary approach in setting TAC.
 - JMC-Canada: Agree on the importance of spatial model.
- JMC-US: We agree that we have done a good job in terms of precautionary management, with TAC set much lower than the default harvest rate. We now have extra years of surveys and the winter survey, and this additional information confirms what the JTC is saying about the population. There are issues, such as access to the 2010 year class, and environmental conditions may be a strong factor. Management has done a good job of incorporating uncertainty but we need to consider what is the appropriate level of precaution, given the uncertainty.
 - JMC-US: The Pacific hake stock is in pretty good shape relative to other fishery resources. Our objectives include supporting the treaty, which provides important benefits to both countries. Also conservation, and the risk assessment approach supports precautionary management. It is important for both countries to benefit from the management approach. The analysis comparing the 2010 and 1999 year classes is important for planning this year's fishery. I think the two countries are pretty close.
 - JMC-US: I am optimistic. This is a strong process that has improved over time. I am also optimistic that there are cooler ocean conditions and strong market demand for 2016.

Delegation meetings

In camera.

AP meeting

In camera.

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Delegation meetings

In camera.

Adjourned: 4:38 pm

March 18, 2016

Delegation meetings

In camera.

AP meeting

In camera.

JMC Plenary meeting

Canadian Chair welcomed participants and reviewed the agenda.

AP report/2016 recommendations

- AP-US: We thank the JMC, JTC and SRG for their support of the process. The consensus AP recommendation for 2016 is for all-in TAC of 497,500 metric tonnes. We also have recommendations for new appointments to the JTC and SRG, which we will submit to the governments following this meeting. We recommend appointment of Lori Steele as U.S. SRG rep to replace Rod Moore.
- AP-Canada: We wish to thank Mike Buston for his contribution and propose Shannon Mann to replace him as the Canadian SRG rep. Mann will also remain an AP member. We also wish to thank the JMC for your patience in this process. Both parties are doing what we can within our fleets to reduce and encourage reduction of interception/harm to 2-year old fish, which is important and prudent for maintaining a healthy hake fishery. We will provide our advice as summarized in a formal written submission after the meeting.
 - AP-US: Agreed.

Discussion

- JMC-US: Thanks to the AP for the time and hard work invested in coming to an agreement. It demonstrates everyone's commitment to making the treaty work and is cause for optimism.
- JMC-Canada: Thanks to the AP members for the difficult work of finding agreement, despite the challenges of having diverse interests. It is gratifying that the 2-year old issue is a consideration as this is important to sustainability.
 - AP-Canada: I support ongoing efforts to address issues of equity and to ensure those are supported by management measures, whether through regulatory actions or fleet behaviour. This is a great first step and I look forward to seeing results.
- Q/A: The AP will submit its advice in a formal written statement by Monday/Tuesday.
- US/Canada JMC: We support the recommended SRG appointments.

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Public comments

- John Bundy, Glacier Fish Company: We are the smallest CP company on the U.S. side, with two vessels in the fishery. I was very impressed watching the AP at work. The process is very constructive and I was interested in hearing from the Canadian fishermen. I wish to stress the importance of raising the TAC a bit when we can do so, as the difference means a trip for us, with a \$420,000 payroll and employment for 92 people, mostly female, and mostly middle age. Many families depend on that. This process is working and I hope to participate in the future.
 - JMC-Canada: Thanks for the comments. It's good to be reminded/grounded on the human aspects.

JMC: 2016 work plan

- JMC-Canada: JMC has proposed a meeting for May 25th, along with development of a template covering the SRG recommendations on stock assessment, survey and MSE as well as the JTC recommendations. The template should provide the JMC with an indication of the work and resources required to complete each item and how results would improve management.
- JMC-US: We are also talking about how to move forward on the MSE.
 - JMC-Canada: The SRG will have their own discussion and come back with advice on the MSE.
- JMC-US: There is also concern that issues dominating the AP discussion are not being discussed in detail at this table. We need to discuss principles about how to deal with issues such as young of the year, instead of expecting the AP to develop such principles on the fly.
 - JMC Canada: Agree on the need to discuss the process. While the treaty places the major burden for decision-making on the AP, the process has evolved such that it no longer provides JMC members with sufficient opportunity to understand issues to support their responsibilities to make recommendations.
 - JMC members agreed to discuss this further at the May meeting, given the time required.

JMC approval: 2016 TAC recommendation

US and Canadian JMC members supported the AP consensus recommendation for 2016 TAC of 497,500 metric tonnes, including US and Canadian carryovers and thanked all participants for their work, including support from the JTC and SRG.

- Q/A: AP confirmed that the final recommendation was 497,500, not 497,505 t.
- US JMC: I am optimistic despite concerns on both sides (e.g. U.S. and Canadian responsibilities to support First Nations/ tribal fisheries).

Next steps/closing comments

- JMC will finalize a draft letter outlining priorities re ongoing efforts to improve the MSE.
- Q/A: JMC is asking the SRG to review recommendations regarding the survey, including the gear issue, for further discussion at the May meeting.

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- AP-Canada: Recommend seeking industry advice on that study.

Canadian JMC Chair closed by thanking all participants for their participation and support of the process.

Adjourned: 11:15 am

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Participants

Name	Advisory Body	Organization
Paul Duell	IMC Cap Chair	DEQ
Frank Lockhart	IMC US Chair	NOAA
Barron Corneill	IMC Cap	Province of British Columbia
Phil Anderson	IMC US	Washington Department of Fish and Wildlife
Bruce Turpie	IMC Cap	Groundfish Conservation Research Society
Don Waldock	IMC US	Pacific Whiting Conservation Cooperative
Theresa Williams	IMC Cap	Fraser Bay Seafoods Ltd
Michelle Meluso	US SDC Chair	NOAA Science
Nathan Taylor	Cap ITC Co chair	DEQ Science
Lee Taylor	US ITC Co chair	NOAA Science
Dave Dougan	Cap AD Chair	Pacific Seafood Group Canada
Lee Bensch	US AD Co Chair	Phoenix Processors Limited Partnership
Bob Moore	US AD/SDC	West Coast Seafood Processors Association
Deter Keett	Cap AD	Independent Fisherman
Brian Moore	Cap AD	Deep Sea Trawlers
Lee Greene	Cap AD	Independent Fisherman
Shannon Mann	Cap AD	Groundfish Trawl Committee
Albert Dodil	US AD	Independent Fisherman
Mike Hyde	US AD	American Seafoods
Dave Smith	US AD	Independent Fisherman
Bob Dealay	US AD	United Catcher Boats
Tom Libby	US AD	Calif Shellfish Co/Hellmark Fisheries/Saint Adems Docking
Alan Carter	US AD	
Mike Okonski	US AD	Pacific Coast Seafood
Brent Payne	US AD	United Catcher Boats
Lori Steele	observer	West Coast Seafood Processors Association
John Buedy	US AD	US Catcher Processors
Mike Hobie	NOAA EM	NOAA
Nail Davis	DEQ OMI	DEQ
Evan Couch	NOAA EM	NOAA
Barry Ackerman	DEQ OMI	DEQ
Dawn Steele	Meeting recorder	