



Atlantic States Marine Fisheries Commission

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Vision: Sustainably Managing Atlantic Coastal Fisheries

American Lobster Assessment Workshop

January 28-31, 2019

836 S. Rodney French Boulevard, New Bedford, MA 02744

Meeting Objectives

1. Review continuity runs and identify any problems or missing data
2. Prioritize data and/or model changes for the 2020 Stock Assessment
3. Come to decisions for questions regarding growth, index standardization, gap-filling, survey catchability and M
4. Identify a point person and path forward for TORs 4, 5, 7, and 8

Monday, January 28th

- **Welcome** **10:00 a.m.**
 - Overview of agenda
 - Overview of workshop goals/objectives

- **GOM/GBK Continuity Run (Jeff)** **10:15 a.m.**
 - Review data inputs
 - Identify existing data needs and set deadline for submission
 - Review 'switches' in model and model output
 - Decision: How should minor modifications to data inputs be handled?

Lunch break will be at 12:30 p.m.

- **GOM/GBK Continuity Run Con't** **1:30 p.m.**
 - Natural Mortality (Kim)
 - Review how M was modeled in previous assessments, including results of sensitivity runs
 - Are there any suggested changes or sensitivity runs for this assessment?
 - Should we consider an environmental covariate instead of manually changing M?
 - Survey Catchability (Kim)
 - Review use in 2015 assessment
 - Needed or appropriate for model based index?

- **SNE Continuity Run (Conor)** **2:30 p.m.**
 - Review data inputs
 - Identify existing data needs and set deadline for submission
 - Review 'switches' in model and model output

- Decision: How should minor modifications to data inputs be handled?
- Natural Mortality (Kim)
 - Review how M was modeled in previous assessments, including results of sensitivity runs
 - Are there any suggested changes or sensitivity runs for this assessment?
 - Should we consider an environmental covariate instead of manually changing M?

- **Adjourn**

5:00 p.m.

Tuesday, January 29th

- **Growth**

9:00 a.m.

- Review previously used and new growth data in google doc
- Review and discuss new growth data sets from Millstone (Kim), MA (Tracy), NH (Josh), the Lobster Conservancy (Conor), and Canada (Burton)
- Update on recent maturity ogives from ME maturity data (Burton)
- Decision: Are there growth data sets that should not be used in the assessment? Examine growth functions developed in Canada vs last assessment. Does available data support model choice? If so, given the Canadian data may support a different growth increment function than what was used in the previous assessment, does the SASC believe growth of Canadian lobsters is similar to US lobsters? Are the juvenile growth data sets representative of stock-wide growth and can these be borrowed for SNE growth?

Lunch break at noon

- **Discuss Next Steps for Growth Modeling**

1:00 p.m.

- Decision: Is time varying growth a feasible modification to the current assessment model? If not, should alternate growth matrices be considered for sensitivity runs (review growth sensitivity runs from last assessment)? What are the growth work priorities?

- **Update on Aging Work (Call with Wahle et al.)**

2:00 p.m.

- How should the SASC address aging work in the assessment? Should it be part of a discussion on growth?

- **Biosampling and Gap-Filling**

3:00 p.m.

- Update on effective sample size approach (Jeff)
- Update on bootstrapping analysis and random effects modeling (Burton)
- Review discard estimates from scallop fishery, if available (Burton)
- Discussion on different approaches to improve gap-filling procedure
- Potential review of sampling intensity updated through 2017
- Decision: What gap-filling approach should be included in the assessment?

- **Adjourn**

5:00 p.m.

Wednesday, January 30th

- **Biosample and Gap-Filling Con't (if needed)** **9:00 a.m.**

- **Inclusion of Juvenile Lobsters in Model** **10:00 a.m.**
 - Discussion on whether size structure of model should be extended to less than 53mm. Some questions to consider are: How long would this modification take? What other data inputs would need to be extended? What is the new minimum length bin? What is the bin size? What data and format should be used for juvenile relative abundance? Where does alternate size structure fall on model/data changes priority list for this assessment?
 - Decision: Guidance for model inputs to extend the size structure

Lunch break at noon

- **Ventless Trap Survey Standardization** **1:00 p.m.**
 - Review structure and interpretation of TC-vetted data used for standardization models (Conor)
 - TC vetted data
 - CFRF Data summary
 - Review updates on models to standardize catchability effects (Conor)
 - Decision: Do we move forward with work on model-based indices of abundance for the VTS?

- **Trawl Survey Standardization (Call w/ Kisei)** **3:00 p.m.**
 - Decision: Strata area to use for design-based indices
 - Update from Burton/Kisei on delta-GLMs to standardize catchability effects
 - Decision: Should any changes be made to standardization models?

- **Adjourn** **5:00 p.m.**

Thursday, January 31st

- **TOR 4: Identify, describe, and (if possible) quantify environmental/climatic drivers** **9:00 a.m.**
 - Identify a point person for the TOR
 - Review environmental data in google doc
 - Discussion on potential lit review and necessary data (sources and format being requested)

- **TOR 5: Evaluate the implications of habitat expansion or contraction on population productivity** **9:45 a.m.**
 - Identify a point person for the TOR (Conor to assist lead with this TOR characterizing Kevin and Mackenzie's work)
 - Discussion on potential lit review and data sources (i.e. Kevin and Mackenzie's work)

- **TOR 7: Review evidence for stock boundaries and associated stock structure** **10:30 a.m.**
 - Identify a point person for TOR
 - Discussion on potential lit review and data sources (i.e. tagging data, genetics, larval dispersion work by Jim/Flynn, work on NEFS trawl survey by Burton showing lack of females)

- **TOR 8: Model Free Indicators** **11:15 a.m.**
 - Lead compiler review data needs and format, set deadlines (Tracy)
 - Discuss potential changes to existing indicators
 - Identify potential environmental indicators (e.g. days above 20°C, prevalence of shell disease, chlorophyll levels)

- **Maturity Project by ASMFC** **12:00 p.m.**
 - ASMFC has funding to conduct a lobster maturity study
 - Overview of ME project and implementation (Jess Waller)
 - Discuss a potential workshop, objectives, personnel, timing for sample collection
 - Decision: What is a good time for a workshop? What is the sampling protocol?

- **Adjourn** **1:00 p.m.**