

A large pile of fresh fish, likely salmon, is shown on a boat deck. The fish are piled high, with some showing signs of being cut or processed. The background is a bright, overexposed area, possibly the sky or a large white tarp.

MSAB program of work 2018-2022

Management Strategy
Advisory Board 10

October 23-26, 2017

IPHC-2017-MSAB10-11

Tasks

1. Review goals & objectives
2. Refine performance metrics
3. Spatial model complexity
4. Identify management procedures
5. Closed-loop simulations
6. Development of educational tools
7. Develop operating models



1. Review goals & objectives

Timeline: Ongoing

Deliverables: A list of goals, and a set of measurable objectives associated with those goals.

Relevance: Relevant goals and measurable objectives are essential to the MSE process.

Resources: Time to review past meetings, MSAB members to confirm and verify intent of goals, MSAB members to assist with the development of measurable objectives



2. Define performance metrics

Timeline: Ongoing

Deliverables: A list of performance metrics that would be informative to stakeholders, managers, and scientists to evaluate the performance of different management strategies.

Relevance: Determining important metrics and finding ways to present them effectively will help with the interpretation of the MSE results.

Resources: Time to review past meetings, MSAB members to confirm and verify current metrics, MSAB members to assist with the development of various performance metrics.



3. Spatial model complexity

Timeline: Now through 2018

Deliverables: Describe what is needed to develop single-area and multiple-area operating models. What measurable objectives a coast-wide or a spatial operating model would address.

Relevance: Identifying the strengths and weaknesses of these two models will help to determine what questions can only be answered by a multi-area model and what can be accomplished with a single-area model.

Resources: Time, a set of measurable objectives



4. Identify management procedures

Timeline: 2018 and then ongoing.

Deliverables: Various management procedures to be tested using closed-loop simulations.

Relevance: Identifying realistic management procedures that are of interest to stakeholders, managers, and scientists will ensure that the results of the MSE are pertinent and useful to managing the Pacific halibut stock.

Resources: Discussions between IPHC staff and MSAB members.



5. Closed-loop simulations

- **Timeline:** 2018, and ongoing improvement after that
- **Deliverables:** A design for a computer program that can perform closed-loop simulations. Then a computer program will be written and tested.
- **Relevance:** A computer program to perform closed-loop simulations is the engine for the MSE. A good design will ensure that the code is useful to address current questions and flexible to accommodate future questions.
- **Resources:** IPHC staff, computer programmer, computing time



Closed-loop simulations priorities

- Coastwide
 - Add items identified during this meeting
 - Add an estimation model
- Multi-area model
 - Develop an operating model
 - Simulations would not be completed until after 2019 AM



6. Development of educational tools

- **Timeline:** 2018 and ongoing
- **Deliverables:** Materials, programs (web-based or installed), examples, etc. that will allow users to understand the MSE process through reading or interaction.
- **Relevance:** These educational tools will facilitate communication and allow users to understand trade-offs between performance metrics given alternative management procedures.
- **Resources:** IPHC staff, computer programmer

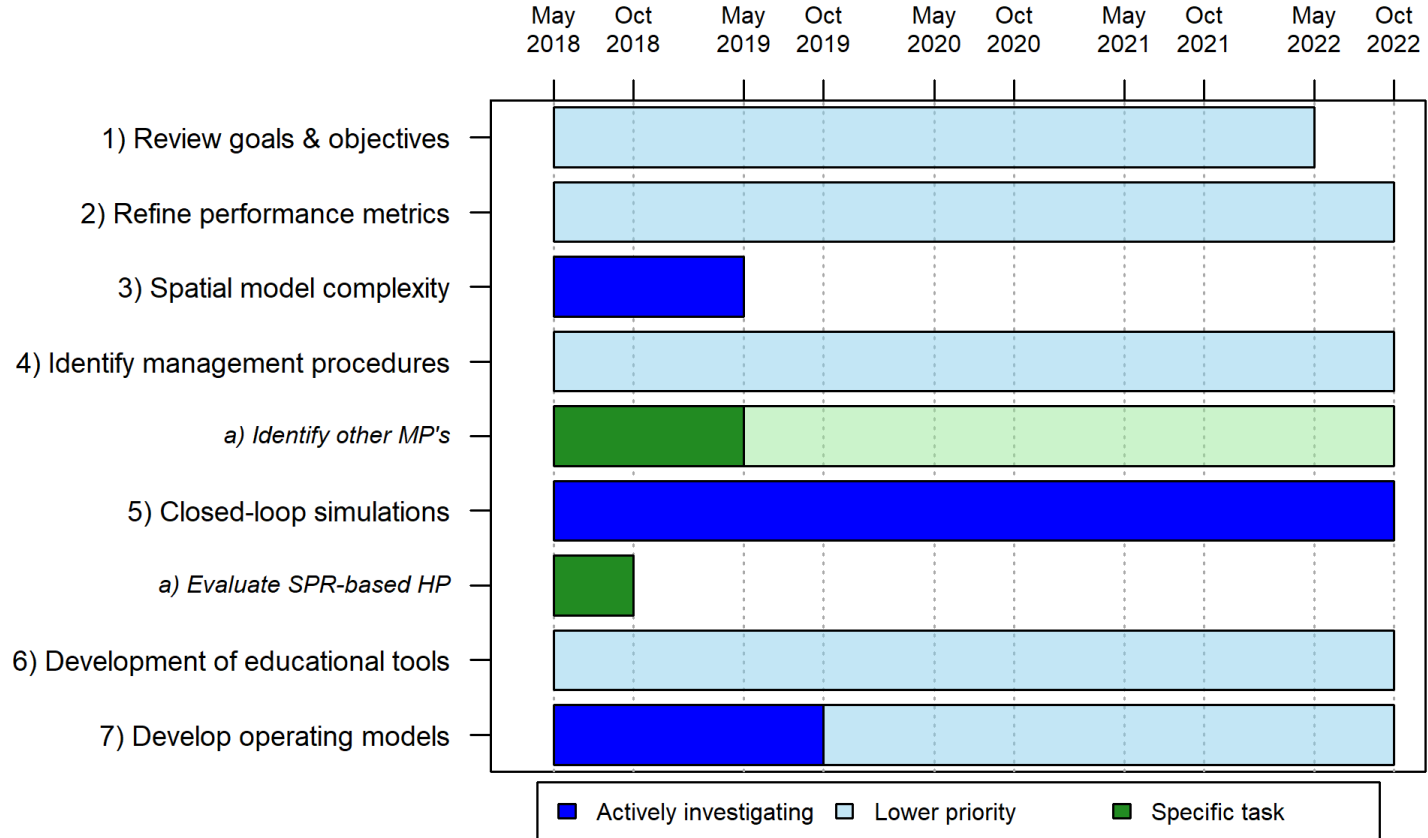


7. Develop operating models

- **Timeline:** Ongoing
- **Deliverables:** Individual models to make up operating models that will satisfy the objectives defined by MSAB.
- **Relevance:** Alternative operating models are necessary to examine structural uncertainty and to answer specific management questions.
- **Resources:** IPHC staff, computer programmer, computing time



Gantt chart



Potential topics at MSAB11

To prioritize

- SCALE
 - Simulations using coastwide OM with an estimation model and other improvements
 - Sensitivities
 - Additional MPs
- TCEY Distribution
 - Discussion of distribution procedures
 - Description of an multi-area operating model



Potential topics at MSAB12

To prioritize

- SCALE
 - Further simulations using coastwide OM with an estimation model and other improvements
 - Additional sensitivities
 - Additional MPs
- TCEY Distribution
 - Discussion of distribution procedures
 - Progress on a multi-area operating model



Recommendations

- **NOTE** paper IPHC-2017-MSAB10-11 which updates the five year MSE workplan.
- **CONSIDER** the seven tasks, descriptions, and timeline.
- **RECOMMEND** additions or deletions to this workplan, or changes to the timeline and priorities.
- Prioritize tasks for 2018

