



INTERNATIONAL PACIFIC



HALIBUT COMMISSION

IPHC Secretariat Program of Work for MSAB Related Activities

Agenda Item 7

IPHC-2019-MSAB013-10

MSE process

1. defining fishery goals and objectives,
2. identifying management procedures to evaluate,
3. simulating a population with application of an MP,
4. evaluating and presenting the results,
5. applying a chosen management procedure, and
6. repeating this process

MSE process

2019

1. defining fishery goals and objectives,
2. identifying management procedures to evaluate,
3. simulating a population with application of an MP,
4. evaluating and presenting the results,
5. applying a chosen management procedure, and
6. repeating this process

MSE process

2020

1. defining fishery goals and objectives,
2. identifying management procedures to evaluate,
3. simulating a population with application of an MP,
4. evaluating and presenting the results,
5. applying a chosen management procedure, and
6. repeating this process

Main Tasks

1. Review, update, and further define goals and objectives
2. Develop performance metrics to evaluate objectives
3. Identify realistic management procedures of interest to evaluate
4. Design and code a closed-loop simulation framework
5. Further the development of operating models
6. Run closed-loop simulations and evaluate results
7. Develop tools that will engage stakeholders and facilitate communication

1. Goals and objectives

- Develop into measurable objectives and statistics of interest
- Translated into performance metrics
- May be used to develop MPs
- Help identify the complexity of the Operating Model
- Most importantly, used to evaluate simulation results

- Will be revisiting this task at every meeting

2. Performance metrics

- Developed from measurable objectives
 - Understandable and relevant
 - Key to evaluating results
 - Used to rank Management Procedures
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- Performance metrics are the transition between results and evaluation

3. Management Procedures

- The things we choose to control and wish to evaluate
 - Data collection
 - Estimation model (e.g., assessment)
 - Harvest Rule
- Will revisit often

4. Closed-loop simulation framework

- Computer program to perform simulations
- Incorporates an Operating Model
- Designed for speed and relevance
- Incorporates advice from MSAB

5. Operating Model

- A collection of models describing the dynamics of the Pacific halibut population
 - Models represent different hypotheses/scenarios
- Will need biological regions with movement
- Will need to report fishery performance metrics by IPHC Regulatory Area
- Complex enough to evaluate MPs against various scenarios

6. Simulations and evaluation

- Run simulations, produce outputs, evaluate results
- Takes time and computer resources
- Use tools (Task 7) to communicate results

7. Develop tools

- Tools to help understand the MSE process, interpret results, and evaluate MPs
 - MSE explorer
- Facilitate communication with constituents

Timeline

AM097
(2021)

Delivery of
MSE
results

May 2019 MSAB Meeting (MSAB013)

Evaluate additional Scale MP's

Review Goals

Spatial Model Complexity

Identify MP's (Distn Scale)

Review Framework

October 2019 MSAB Meeting (MSAB014)

Review Goals

Spatial Model Complexity

Identify MP's (Distn Scale)

Review Framework

Review multi-area model development

Annual Meeting 2020 (AM097)

Update on progress

May 2020 MSAB Meeting (MSAB015)

Review Goals

Review multi-area model

Review preliminary results

October 2020 MSAB Meeting (MSAB016)

Review Goals

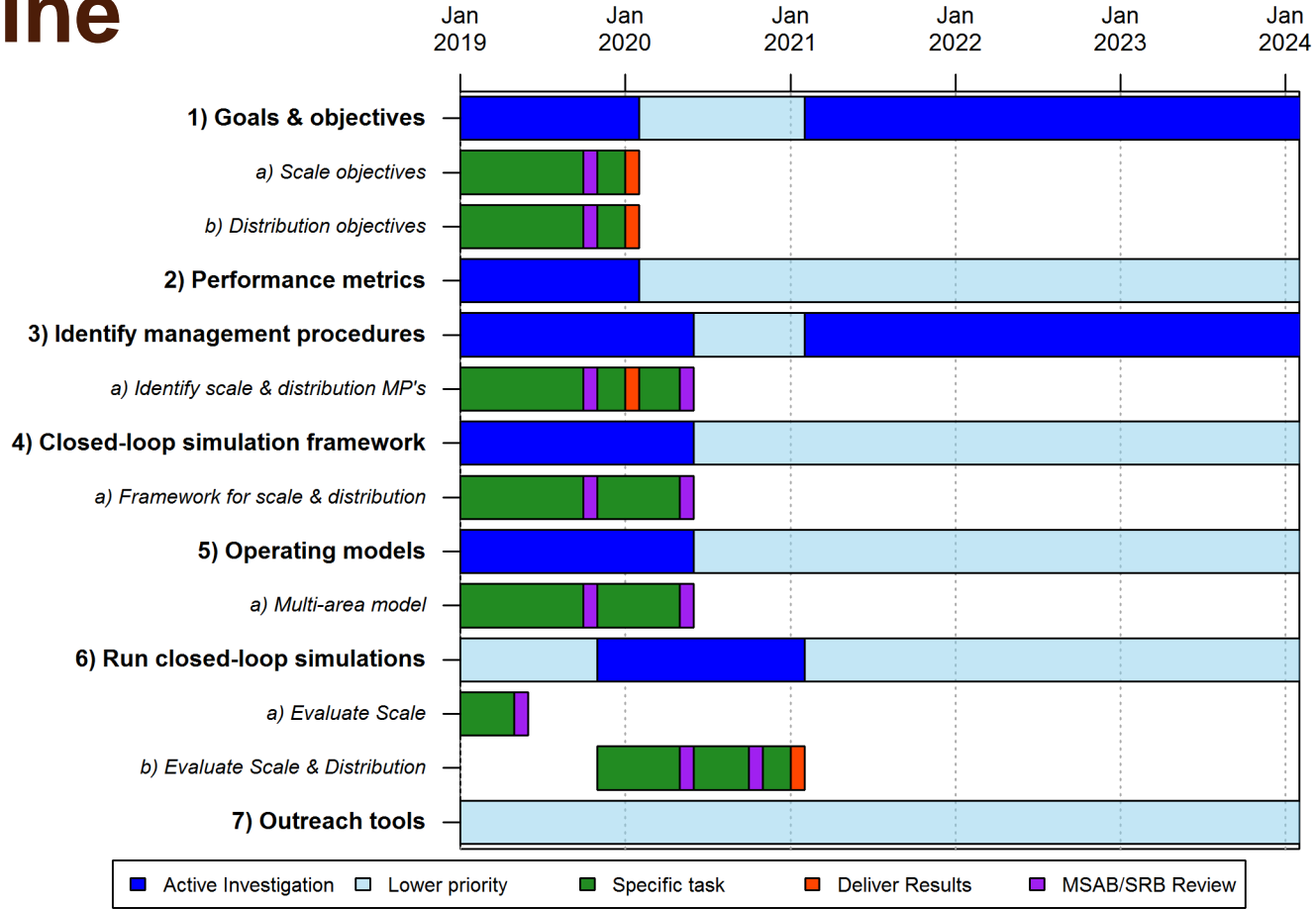
Review final results

Annual Meeting 2021 (AM097)

Presentation of first complete MSE product to the Commission

Evaluation of Scale and Distribution MP

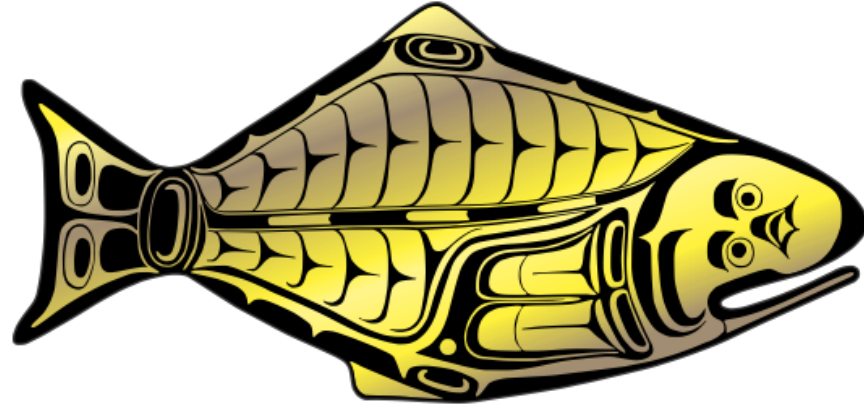
Timeline



MSAB013

- **NOTE** paper IPHC-2019-MSAB013-10 which updates the IPHC Program of Work for MSAB related activities for the period 2019–23.
- **NOTE** the delivery date of January 2021 (97th Annual Meeting) for the first complete MSE results including Scale and Distribution components of the management procedure for potential adoption by the Commission and subsequent implementation.
- **CONSIDER** the seven tasks, descriptions, and timeline.
- **RECOMMEND** additions or deletions to this Program of Work, or changes to the timeline, priorities, and deliverables.

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