

# **Decision Support Tool – Web App**

Kimberly Bastille, Andrew (Lou) Carr-Harris, Min-Yang Lee

## Purpose

 Provide a decision support tool that allows stakeholders to explore how alternative regulations impact estimates of harvest, discard, angler satisfaction (\$), and fishing effort.

## Goal

- Make an easy-to-use point and click interface for model.
- Improve upon the previous workflow.



### Your Feedback

- •45 runs from ~10 individuals
- Post cycle survey
  - "improved the decision-making process"
  - "positive experience"
  - "Great!"
  - "achieved the intended goal"
- Proposed Improvements
  - Add median cod and haddock catch estimates to table
  - Add % under ACL to table
  - Speed up run time and prevent need to restart whole tool
  - Separate the overlapping labels in first figure X



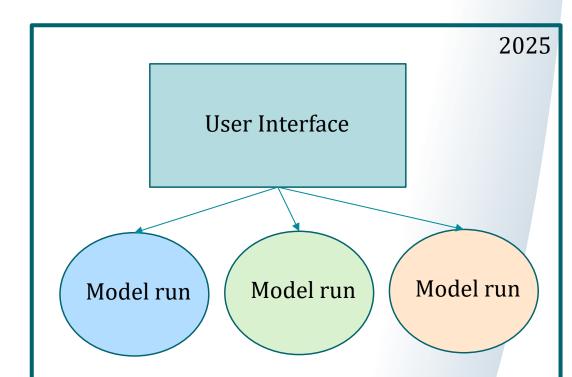
# Improved Experience

2024

User Interface

Model run

- User has to leave tool open and untouched for long time
- "I had to just restart the app altogether"



- User can kick off multiple runs at a time and then close app to log in later to see results
- Potentially cheaper as large machine only running when model is calculating

## App Demo

### Western Gulf of Maine Cod and Haddock Recreational Fisheries Decision Support Tool

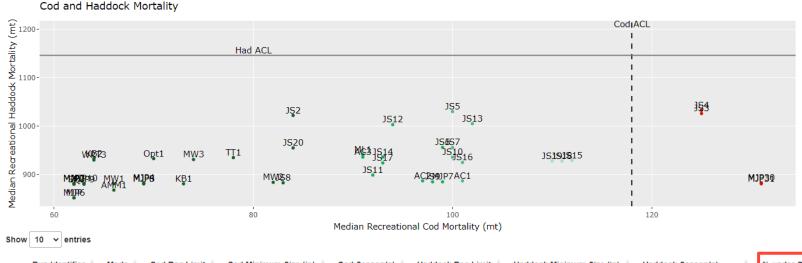
Cod and Haddock Model Summary

Update

Regulation Selection

This page summarizes models results for sets of policies that have been run to date. These are intended as a jumping off point for your own model runs.

Hover over each point to view the detailed statistics for each model run. The first section contains a table of recreational management measures. The second section contains graphs of mortality. The third section has graphs of other performance measures, including relative change in Angler Satisfaction, Trips, and Discards.



% of simulations under cod ACL

- 50-59%
- 70-79%
- 80-89%
- 90-100%

Search:

Less than 50%

	Run Identifier 🖣	Mode 🖣	Cod Bag Limit 💠	Cod Minimum Size (in) $\stackrel{{}_{\scriptstyle +}}{\scriptscriptstyle +}$	Cod Season(s) 🖣	Haddock Bag Limit 💠	Haddock Minimum Size (in) 💠	Haddock Season(s)	% under Cod ACL 💠	$\%$ under Haddock ACL $\mbox{$\stackrel{\perp}{=}$}$
1	AC1	For Hire	3	20	08-01 - 10-31	15 , 15	18 , 18	05-01 - 02-28 , 04-01 - 04-30	77	94
2	AC1	Private	3	20	08-01 - 10-31	15 , 15	18 , 18	05-01 - 02-28 , 04-01 - 04-30	77	94
3	AC2	For Hire	2	20	08-01 - 10-31	15 , 15	18 , 18	05-01 - 02-28 , 04-01 - 04-30	83	94
4	AC2	Private	2	20	08-01 - 10-31	15 , 15	18 , 18	05-01 - 02-28 , 04-01 - 04-30	83	94
5	AC3	For Hire	2	21	08-01 - 10-31	15 , 15	17 , 17	05-01 - 02-28 , 04-01 - 04-30	88	90
6	AC3	Private	2	21	08-01 - 10-31	15 , 15	17 , 17	05-01 - 02-28 , 04-01 - 04-30	88	90
7	AMM1	For Hire	1	21	09-01 - 10-31	20 , 15	17 , 18	05-01 - 12-01 , 04-01 - 04-30	98	94

# App Demo

Regulation Selection

Cod and Haddock Model Summary

### Western Gulf of Maine Cod and Haddock Recreational Fisheries Decision Support Tool

Use this page to set up the regulations that you would like to simulate. Only click the button ONCE before clicking over to Results tab. We have pre-loaded the status quo regulations.

Run Me			
lease name this using your initions are the run (ex. AB1).	als and the		
Cod		Haddock	
or Hire Open Season 1 2025-09-01 — 2025-10-31	2026-04-30	For Hire Open Season 1 2025-05-01 2026-02-28	
Bag Limit	Min Length	Bag Limit Min Lei	ngth
1	15 23 30 15 17 19 21 23 25 27 29 30	15	18 34 17 19 21 23 25 27 29 30
rivate Open Season 1		Private Open Season 1	
2025-09-01 — 2025-10-31	2026-04-30	2025-05-01 2026-02-28	
Bag Limit	Min Length	Bag Limit Min Lei	ngth
1	15 23 30 15 17 19 21 23 25 27 29 30	15	18 3( 17 19 21 23 25 27 29 30
Add Season		For Hire Open Season 2 2025-05-01 2026-04-01 — 2026-04	4-30
			_
		Bag Limit Min Lei	_
		45	10

# App Demo

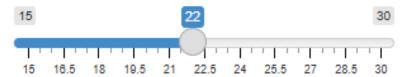
### Private Open Season 1



### **Bag Limit**

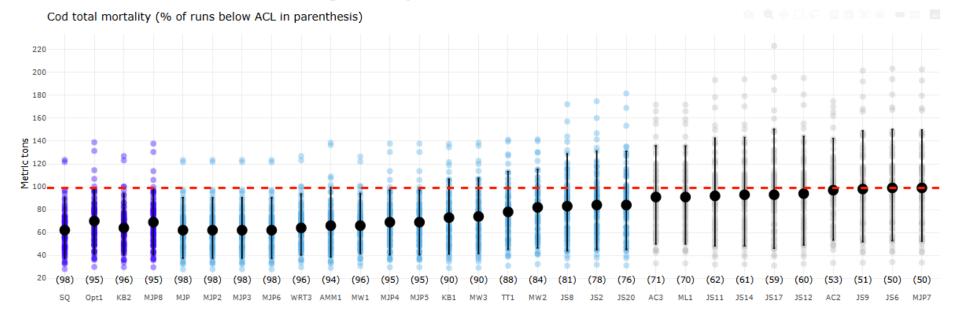
1

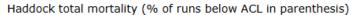
### Min Length

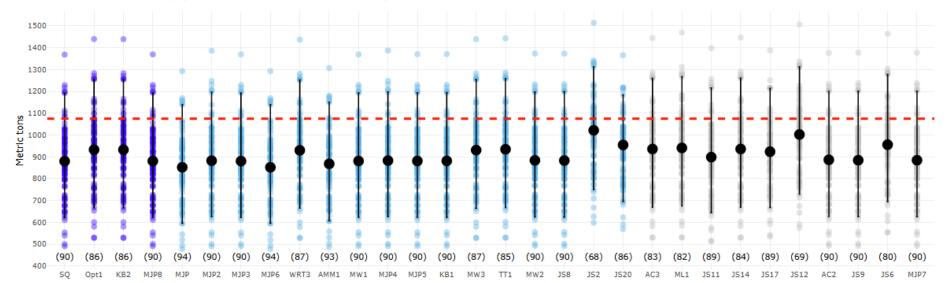


Add Season

#### Distribution of total recreational fishing mortaltiy







https://kimberly-bastille.github.io/groundfishRDM/Model\_Summary

## **Timeline**

Date	Activity
Dec 15	Wave 5 Data
Week of Dec 29	Tool Available Office Hours with Kim
Week of Jan 19	RAP and Committee meetings

 Office Hours – 4-5 timeslots to join in, log on, and ask questions about tool or outputs