



Management Strategy Evaluation—Tanner Crab (*Chionoecetes bairdi*)

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Master's Research

May CPT 2018

My Background

- B.S. Aquatic and Fishery Sciences & Oceanography
 - Minors in Quantitative Science and Marine Biology
 - University of Washington
- NRC
 - 2014-present
 - BSFRF
 - Summer charters (3)
 - Growth charters (2)
- Master's Program at UW September 2017
 - Punt Lab
 - Committee:
 - Andre Punt
 - Buck Stockhausen
 - Chris Siddon
 - Trevor Branch



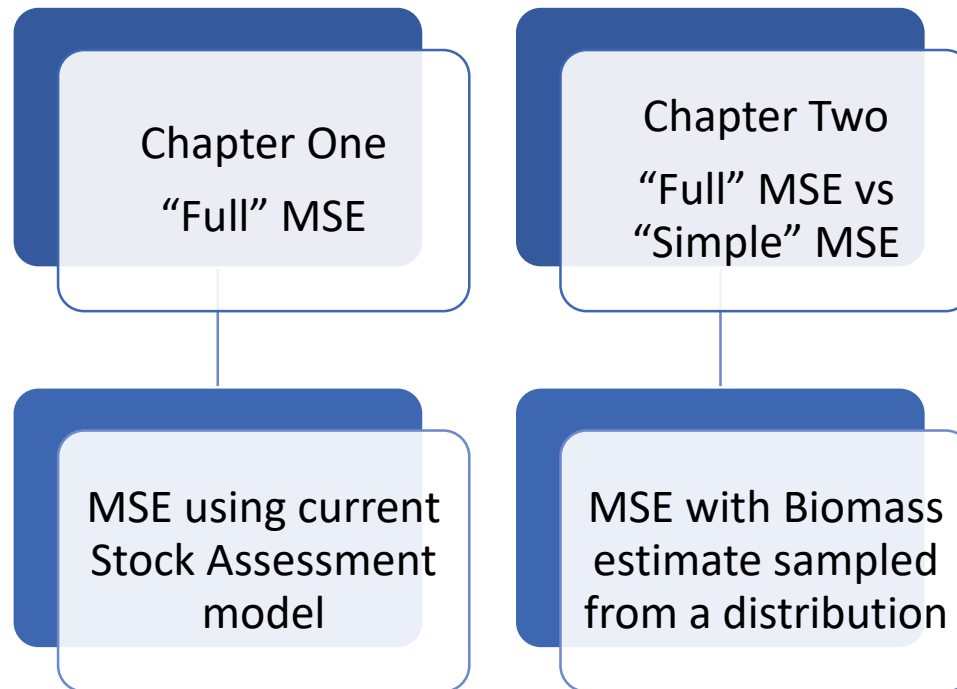
Questions

- What harvest control rules are preferred/optimal for the Tanner crab fishery?
- What are the consequences of using a “full” vs “simple” MSE?

Why an MSE?

- Low risk-high reward option for evaluating fishery options
- Evaluation of Harvest Control Rules
 - Identify a harvest strategies that achieve a satisfactory balance among the objectives
 - Evaluation of “on/off switches” and “thresholds” in candidate harvest control rules
- Building more flexibility for State
 - Model built with state consideration
 - Feedback options for managers and stakeholders

Chapters



Goals- i

1

Run MSE using the
**current assessment
model** under
specified Harvest
Control Rules

2

Use of a Full MSE

3

ADF&G
Implementation

- BOF 2020
- Deliverable by April 2019

Goals- ii

1

Run **simplified** MSE simulations under specified Harvest Control Rules

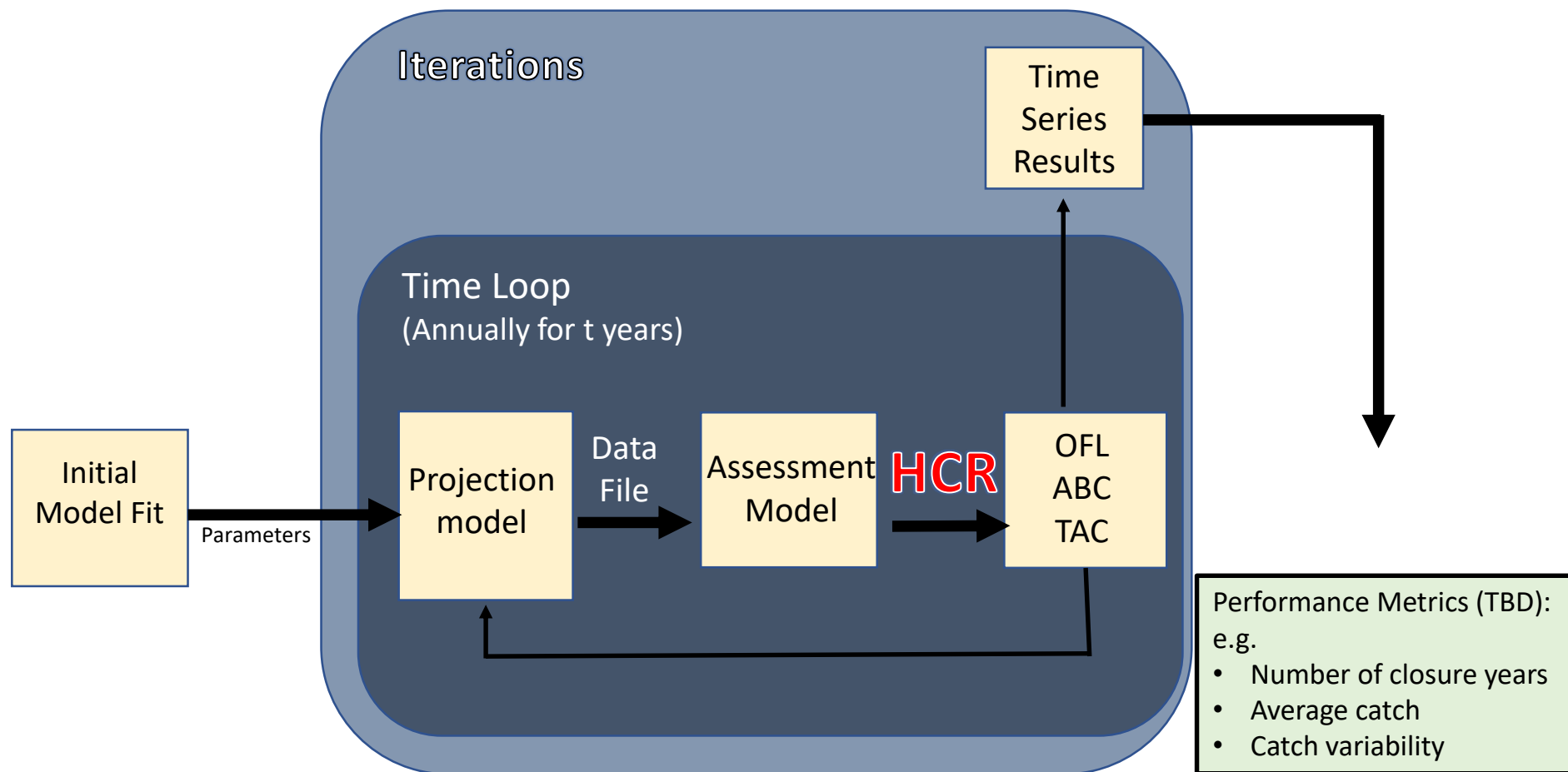
2

Evaluation of whether conclusions of simple MSE match those of full MSE

3

Present findings supporting/rejecting the use of “simple” MSEs when assessments exist

Chapter 1- Full MSE using current Assessment



Chapter 2 – MSE light

- Generate Biomass of crab from a specified distribution (e.g. log-normal)
- Compare Performance Metrics from the full MSE (chapter 1) to those from the simple MSE
 - Utility of “MSE light” methods
 - How much is lost?

High Priority Steps

- Current Tanner crab assessment model
 - ✓ Running
 - ☐ Projecting under simple HCR (Fixed Catch)
- Meeting/Workshop with NMFS, ADF&G, Stakeholders
 - Establish fishery objectives
 - Workshop Harvest Control Rules to be tested in MSE

Thank You! Questions?

- University of Washington
- BSFRF
- ADF&G
- NMFS
- NRC

