


# Last 20+ Years of work on Lower Fraser White Sturgeon

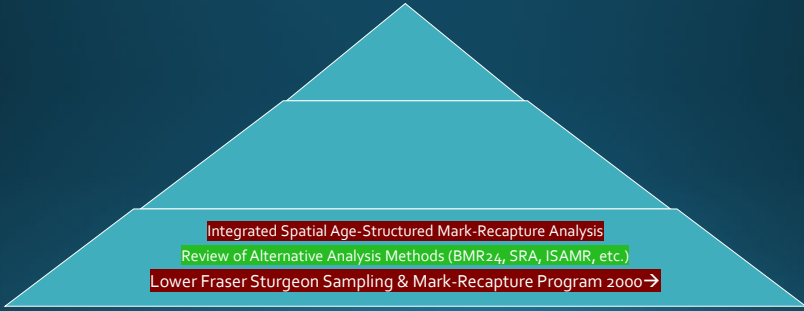


Prepared by Karl English for:  
BC Fraser River Sturgeon Management Plan

Phase I – Lower Fraser River Information Sharing Session  
21 November 2022

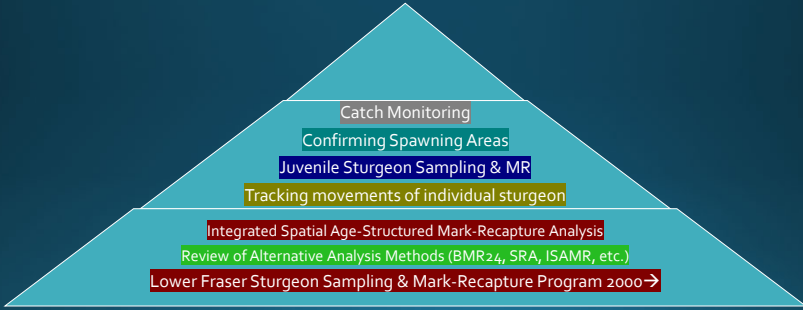
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# Summary of core information and studies conducted for Lower Fraser White Sturgeon (2000-present)



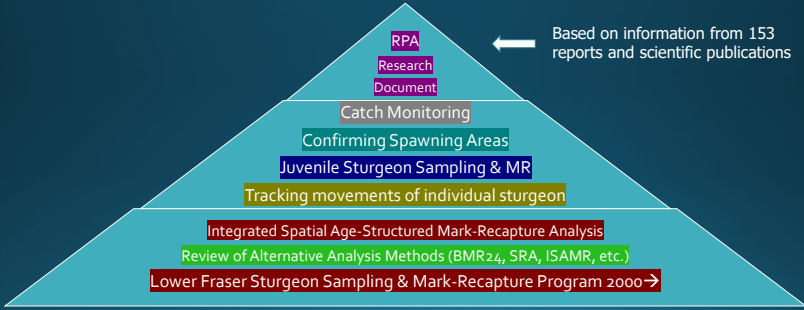
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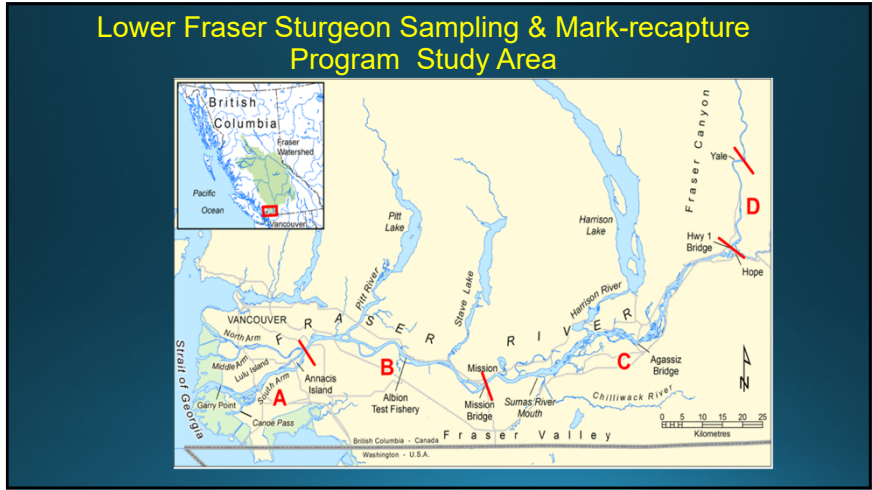


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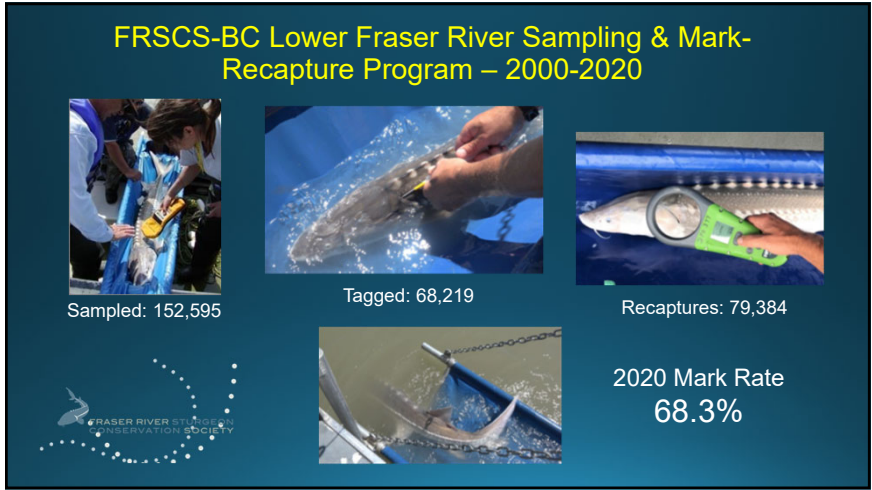
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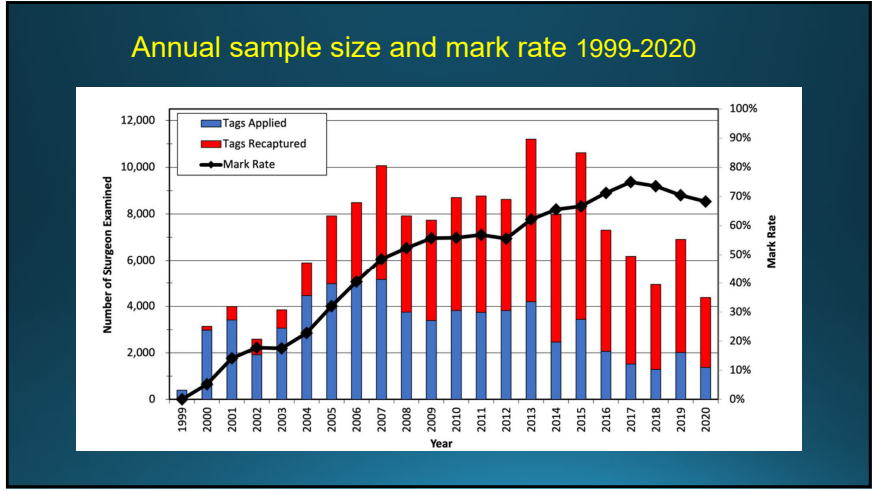
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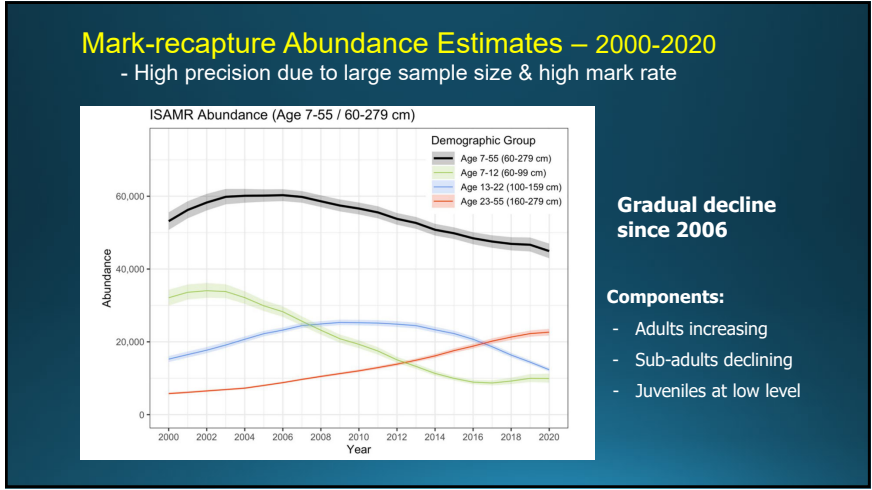
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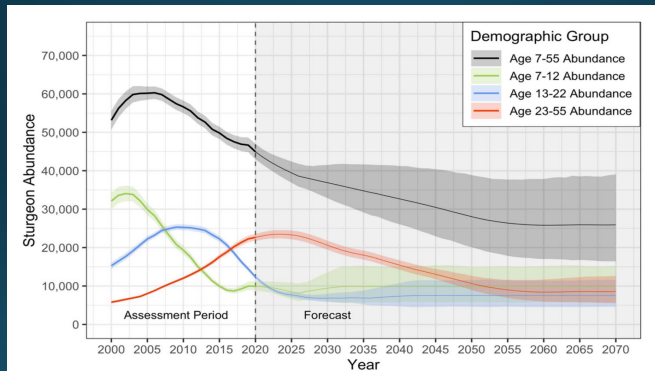


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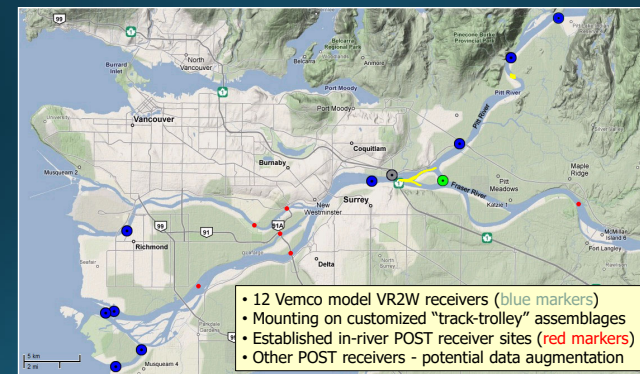
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Projection – decline will continue if juvenile abundance and survival does not improve



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Tracking Movements of Individual Sturgeon – Example:  
12 acoustic receivers were deployed in 2008-12 to study sturgeon movements in the lower Fraser River



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Juvenile Sturgeon Sampling & MR Projects 2007-2022

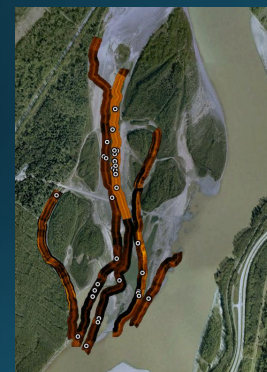


- Tangle net surveys 2007-17
- Juvenile mark-recapture 2018-22
- Habitat assessment for VFPA 2019-22



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Confirming Sturgeon Spawning Areas 2013-16 – Example:  
Seabird Island - Side-scan sonar surveys 2015



- 40 large sturgeon in early June
- mostly upstream of access road for gravel extraction
- similar to detections in 2013 and 2014
- Sturgeon spawning confirmed using egg mats

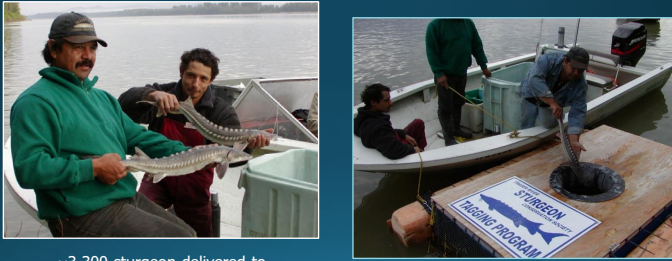


Sturgeon spawning habitat examined during winter

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### Catch Monitoring – Bycatch in First Nation Fisheries

First Nations Collaboration with FRSCS in M&A Program  
(catch & survival assessed using sanctuary boxes)



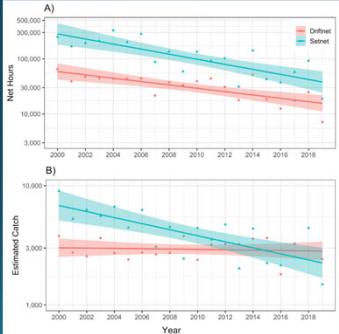
~3,300 sturgeon delivered to sanctuary boxes from 2000-2005

Sturgeon caught using set nets had higher mortality rates than those caught using drift nets

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### Catch Monitoring – Bycatch in First Nation fisheries

- Sturgeon catch and mortalities in FN fisheries could account for 10-33% of the decline in 60-159 cm sturgeon from 2003-2019
- Current context – notable reduction in FN fishing effort and estimated sturgeon catch from 2000 to 2019.



RPA Figure D4. Trends in FN fishing effort and sturgeon catch, 2000-2019

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### Catch Monitoring - Recreational Fisheries

- Estimates derived using angler questionnaire data (2009-present).
- Large number of sturgeon (18,000-50,000) are caught by anglers in the lower Fraser River each year.
- Survival rates are high for sturgeon released by anglers.



Guidelines for Angling White Sturgeon were prepared and distributed to guides and anglers in 2014.

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### Recovery Potential Assessment for Lower Fraser River White Sturgeon – Jan. 2020 – Nov. 2021

- Preparation of a comprehensive working paper based on results from 153 reports and scientific publications
- CSAS review of the working paper by 30+ participants
- Preparation of a Science Advisory Report
- Publication of the peer-reviewed RPA Research Document





Res. Doc. Authors: English, Challenger, Robichaud and Korman

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### What can we do with the available information?

- Recognized that the abundance of Lower Fraser White Sturgeon is declining.
- Confirm that the major threats to the population have been identified.
- Use it to identify and implement management actions to protect and rebuild Lower Fraser White Sturgeon.



The fate of Lower Fraser White Sturgeon is in our hands...