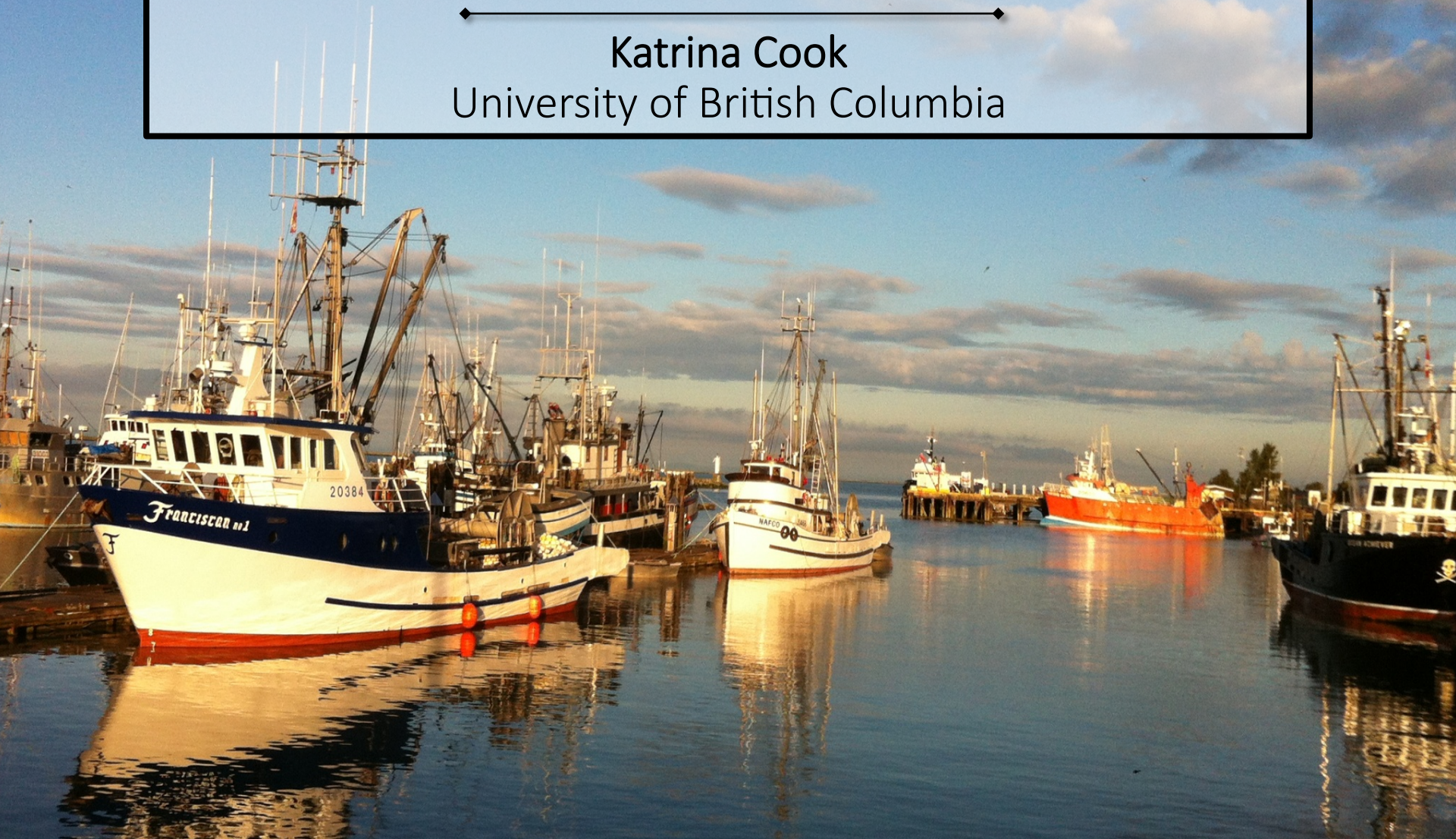


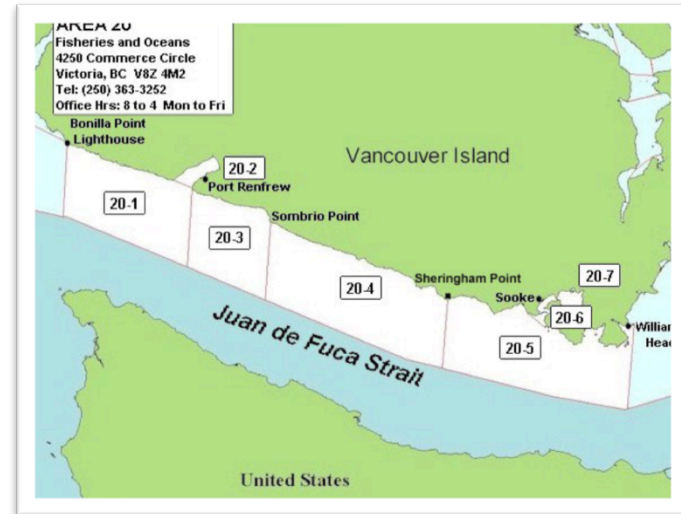
Evaluating causes of mortality in coho salmon released from purse seine fisheries in the Juan de Fuca Strait

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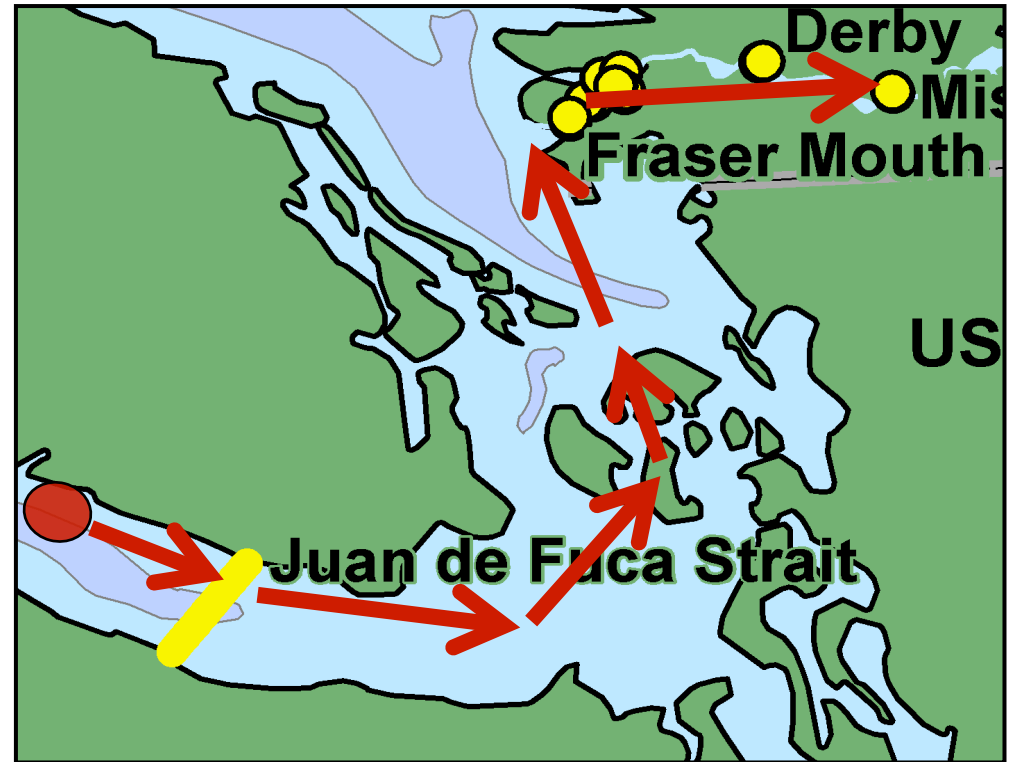
Management Issue and Methods

- Area 20 in Juan de Fuca Strait is a migration corridor for all species of salmon
 - Openings limited due to coho bycatch
 - Endangered Interior Fraser River coho caught
- Purse seine fisheries managed using mortality estimates for released bycatch
 - 24h mortality estimate of 70% applied in Area 20 for coho
 - Estimates often low, do not exceed 25% in other areas
- Commercial vessel charted to simulate actual pink salmon fishery, coho bycatch tagged externally
 - Study fish biopsied for DNA
 - Injury and reflexes (RAMP) assessed



Results: Post-release Mortality

- Mortality consistently lowest for endangered Interior Fraser River stock grouping (8% of sample)
- Fish not surviving to JDF line had greater injuries and more impaired reflexes



Population	Mortality	
	Overall	IFR coho
To JDF Line	32%	16%
To Fraser River	72%	50%
Within Fraser River	0%	0%

Conclusions ➔

- Short-term holding studies not reflective of post-release mortality
 - Telemetry more appropriate
- Stock-specific survival important to consider for management
- Long term mortality rates concerning
 - Management should consider delayed mortality
 - Estimates do not consider natural mortality or unreported capture
- The 70% 24-hr mortality applied in Area 20 for coho is high
 - Other mortality estimates currently used to manage purse seine fisheries likely inaccurate

