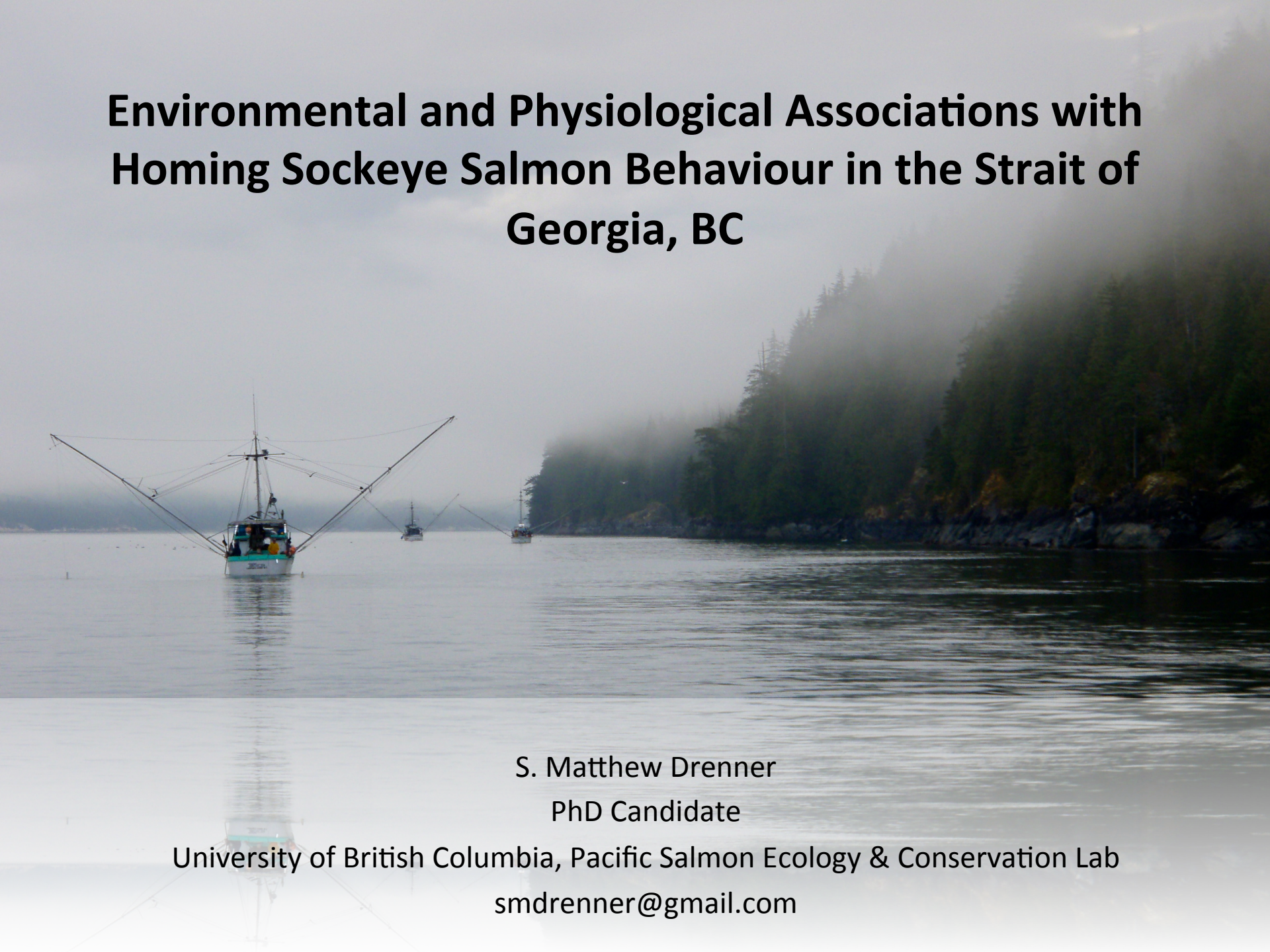
Environmental and Physiological Associations with Homing Sockeye Salmon Behaviour in the Strait of Georgia, BC



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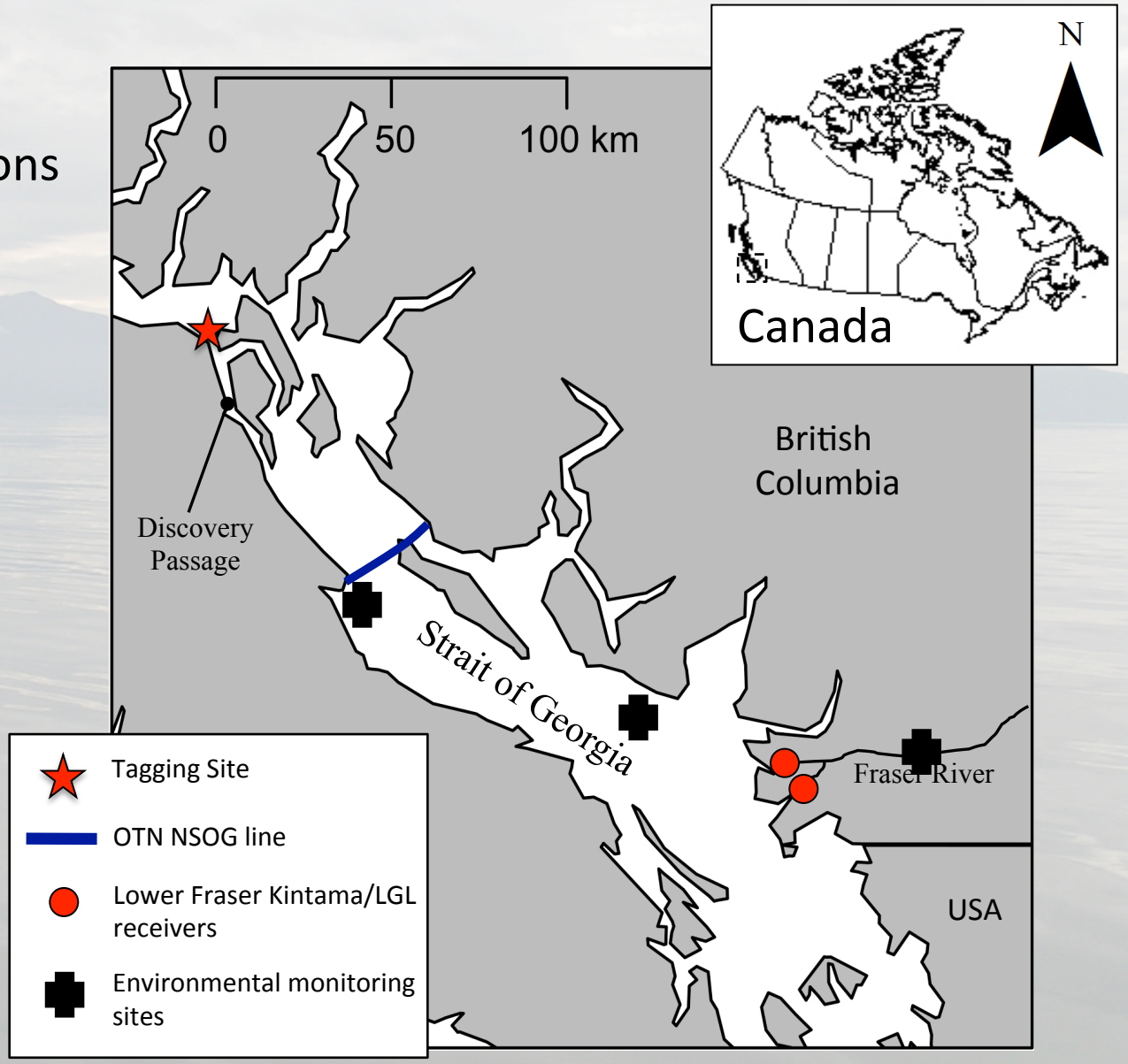
Methods

- Two migration sections
  1) upper
  2) lower

- Environmental data
  - discharge
  - temperature
  - salinity
  - wind

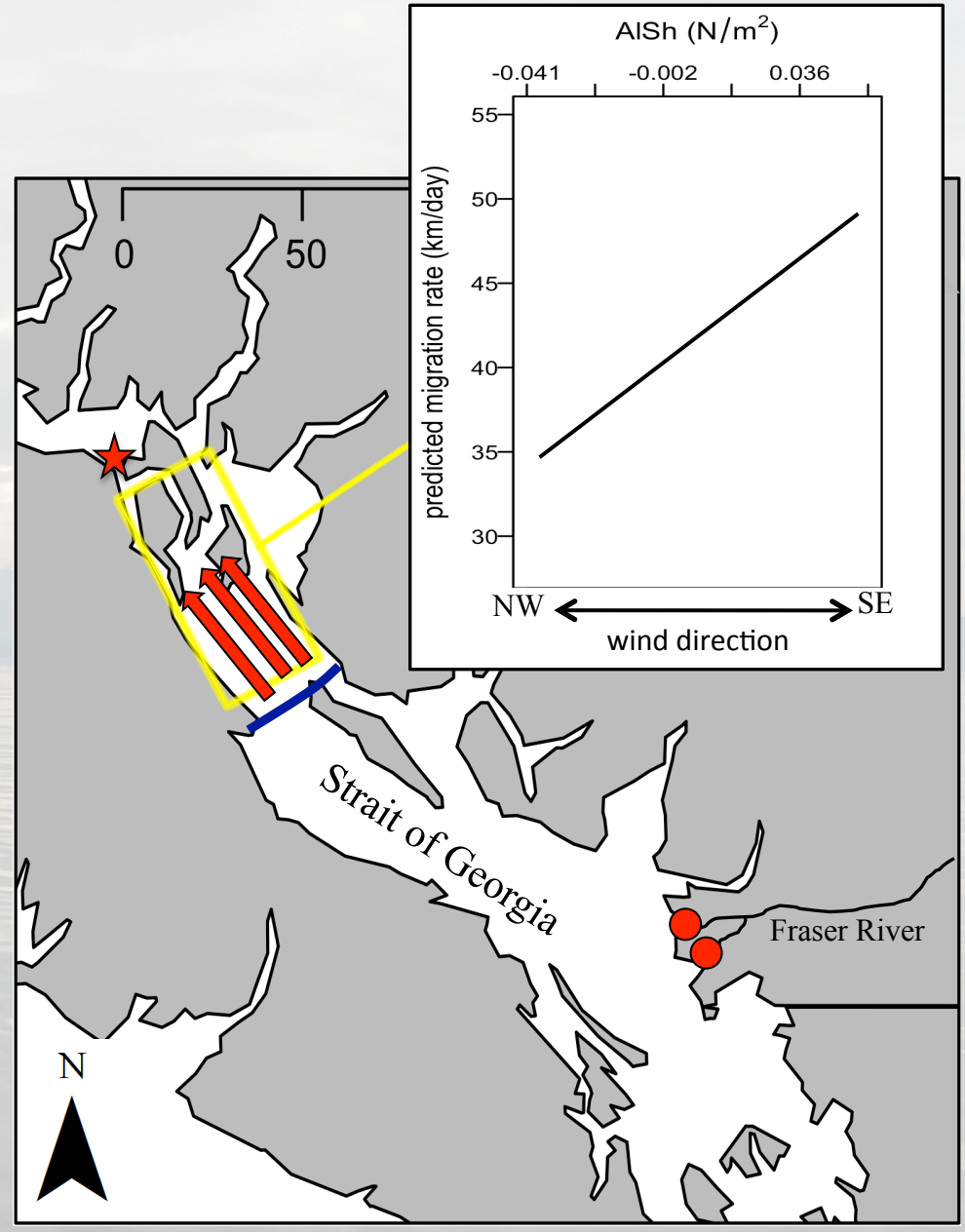


Winds carry Fraser River influenced surface water north (Thomson 1981)

Sockeye are exposed to olfactory signal (Quinn & Dittman 1990)

Neuroendocrine response accelerates maturation (Ueda 2011)

More reproductively mature fish migrate faster (Cooke et al. 2008; Crossin et al. 2007, 2009)



Winds create surface currents flowing towards the Fraser River (Thomson 1981)

Sockeye use surface currents in estuary to assist movements as energy saving strategy (Levy & Cadenhead 1995)

Use of surface currents results in faster migration