

# Background

## OTN Pacific Arena

- Anadromous Pacific salmon
  - Economically, culturally and ecologically important
  - Biotelemetry (radio, acoustic) and biologging (temp loggers)
  - Correlational and experimental approaches

## Objective

Understand how environmental, physiological and anthropogenic conditions experienced by migrating salmon influence their behaviour and survival

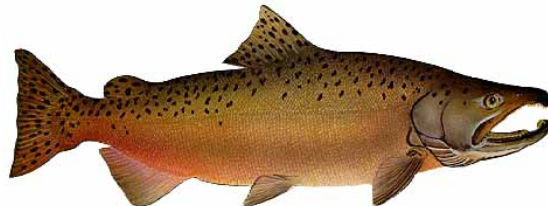
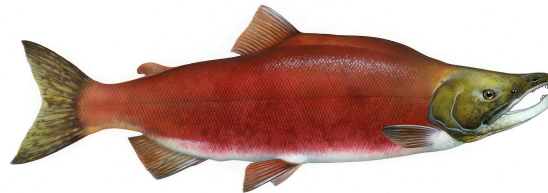
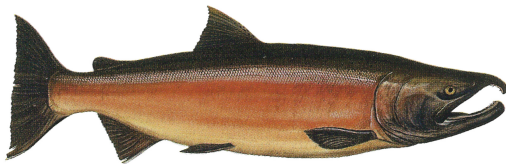
# Synthesis

Tagging, handling and calibration of tags

Behaviour and survival of smolts



Behaviour and survival of adults



# Summary

Four basic components of the movement ecology framework\* applied to the study of Fraser River salmon migrations:

- External factors (**what?**)
  - Environmental, anthropogenic, tagging, handling
- Internal state (**why?**)
  - Physiological state, diseases
- Motion capacity (**how?**)
  - Migration speed, anaerobic swimming
- Navigation capacity (**where and when?**)
  - Smolt and adult coastal migration
- **FATE – implications for management**

\*Nathan et al (2008) PNAS