May 1st, 3:30 PM - 5:00 PM

Movements of sub-adult Chinook salmon, Oncorhynchus tshawytscha, in Puget Sound, Washington, as indicated by ultrasonic tracking

Anna Kagley
Northwest Fisheries Science Center (U.S.), anna.kagley@noaa.gov

Joe Smith
University of Washington

Thomas Quinn
University of Washington

Kurt Fresh
Northwest Fisheries Science Center (U.S.)

Joshua Chamberlin
Northwest Fisheries Science Center (U.S.)

See next page for additional authors

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**Speaker**
Anna Kagley, Joe Smith, Thomas Quinn, Kurt Fresh, Joshua Chamberlin, Dawn Spilsbury-Pucci, and Stephanie Moore
MOVEMENTS OF SUB-ADULT SALMON IN THE SALISH SEA

Anna Kagley, Joe Smith, Kurt Fresh, Thomas Quinn, Dawn Spilsbury-Pucci, Stephanie Moore, Joshua Chamberlin & Fred Goetz
RESIDENT OR MIGRANT?

Jessica Rohde
CHINOOK AND COHO SALMON:

Differences between resident and migrant

Resident movements on a spatial scale:
1. Puget Sound
2. Between basins
3. Within basin habitat-use
4. Vertical

Movements of individual residents on temporal scales:
1. Seasonal
2. Diel

Possible abiotic/biotic drivers

Movements of the population
RECEIVER’S
TAGGING
## DEMOGRAPHICS (CHINOOK SALMON)

<table>
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<tr>
<td>Length</td>
<td>Resident</td>
<td>276 (58.2) mm</td>
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<tr>
<td></td>
<td>Migrant</td>
<td>275 (44.5) mm</td>
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<tr>
<td>Weight</td>
<td>Resident</td>
<td>267 (143.7) g</td>
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<td>276 (157.2) g</td>
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<td>Migrant</td>
<td>1.2 (0311)</td>
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HORIZONTAL MOVEMENT
All fish detected by basins:
Residents detected by basin:

A) Admiralty Inlet: 11 tags
B) Main Basin: 34 tags
C) South Basin: 15 tags
D) Whidbey Basin: 9 tags

Tagging locations:
- Similk Bay
- South Skagit Island
- Mariner’s Cove
- President’s Point
- President Point E
- Jefferson Point
- Port Madison W
- Port Madison
- Indianola
- Blakely Harbor
- Restoration
- Puget Sound
- Strait of Georgia
- Strait of Juan de Fuca
- Admiralty Inlet
- Main Basin
- Whidbey Basin
FISH DISTRIBUTION

Most detections in Central Puget Sound – where tagged

1 Resident and 1 Migrant Briefly entered HC

6 Residents and 2 Migrants entered Whidbey Basin. (3 of those were tagged there)
**PATTERNS:**

*Differences between resident and migrant:*
- 30% of presumed residents left
- no obvious H/W, size, genetic differences

*Resident movements on a spatial scale:*
1. Puget Sound: basin fidelity
2. Between basins, didn’t follow N to S pattern
3. Within basin habitat-use: receivers closer to shore
4. Vertical: residents move slower, behavior patterns

*Movements of individual residents on temporal scales:*
1. Seasonal: no large scale differences
2. Diel: Go see Joe’s talk!

*Possible abiotic/biotic drivers:*
Temp, Sal, DO, predators?

*Movements of the population:*
TBD!
FUTURE WORK: SAN JUAN ISLANDS
COLLABORATION:

Sharing Receivers:
  Steelhead Recovery
  Orcas

Sharing Data:
  OTN/ATN
  IOOS
  Hydra
THANKS!

• Jay Field
• Iris Kemp
• Jessica Rohde
• Kim Guibault
• Jason Hall
• Eva Schemmel
• Kinsey Frick
• Casey Rice
• Scott Stelzner
• Kelly Andrews
• Mary Moser
• Eric Jeanes