

# Alaska Management and Assessment 2016

Presented by:

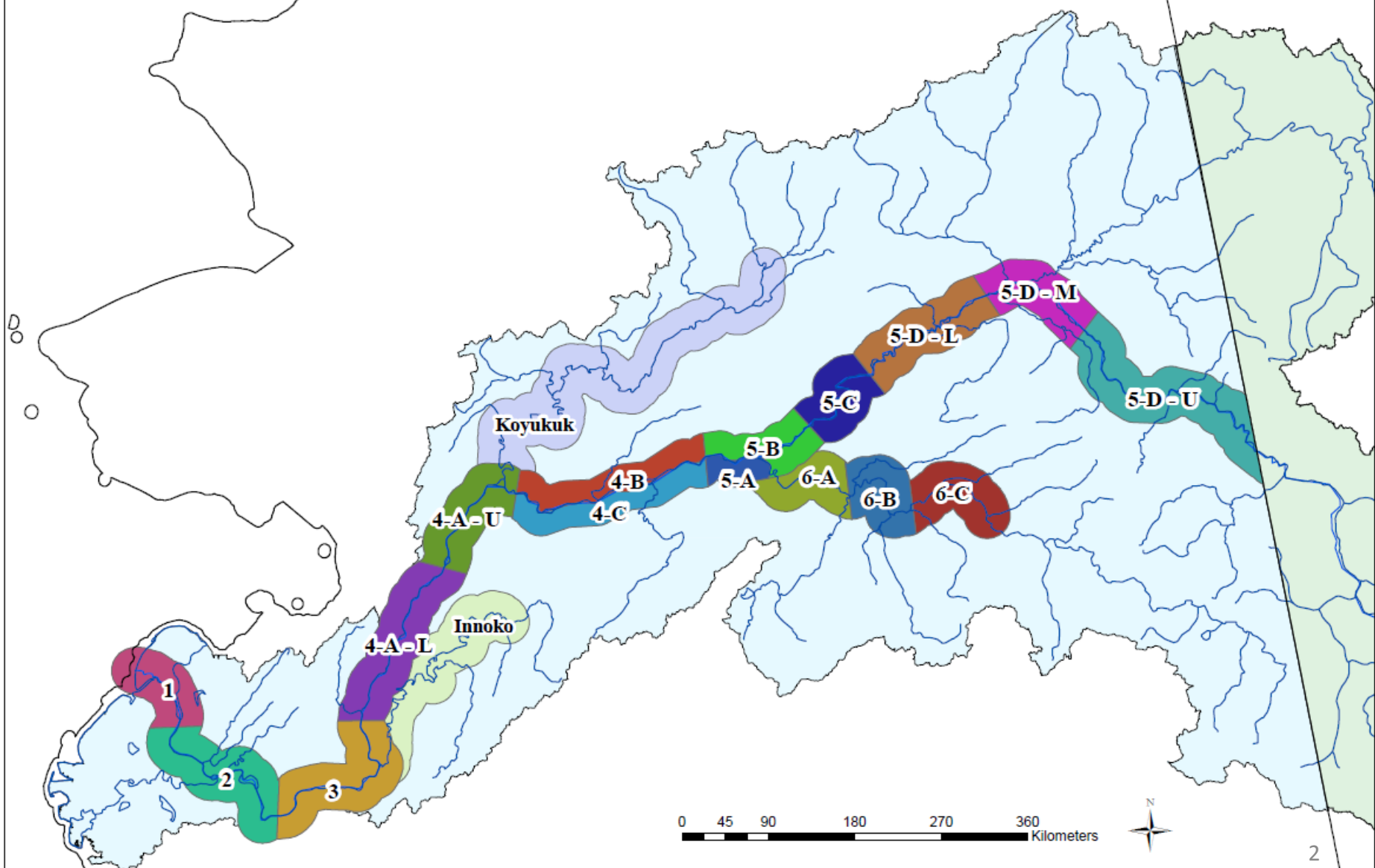
Holly Carroll

ADF&G – Yukon River Summer Season management Biologist

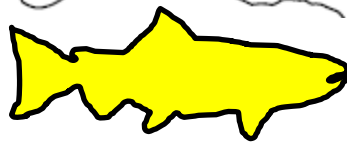
Yukon River Panel Meeting, Anchorage, Dec 2016



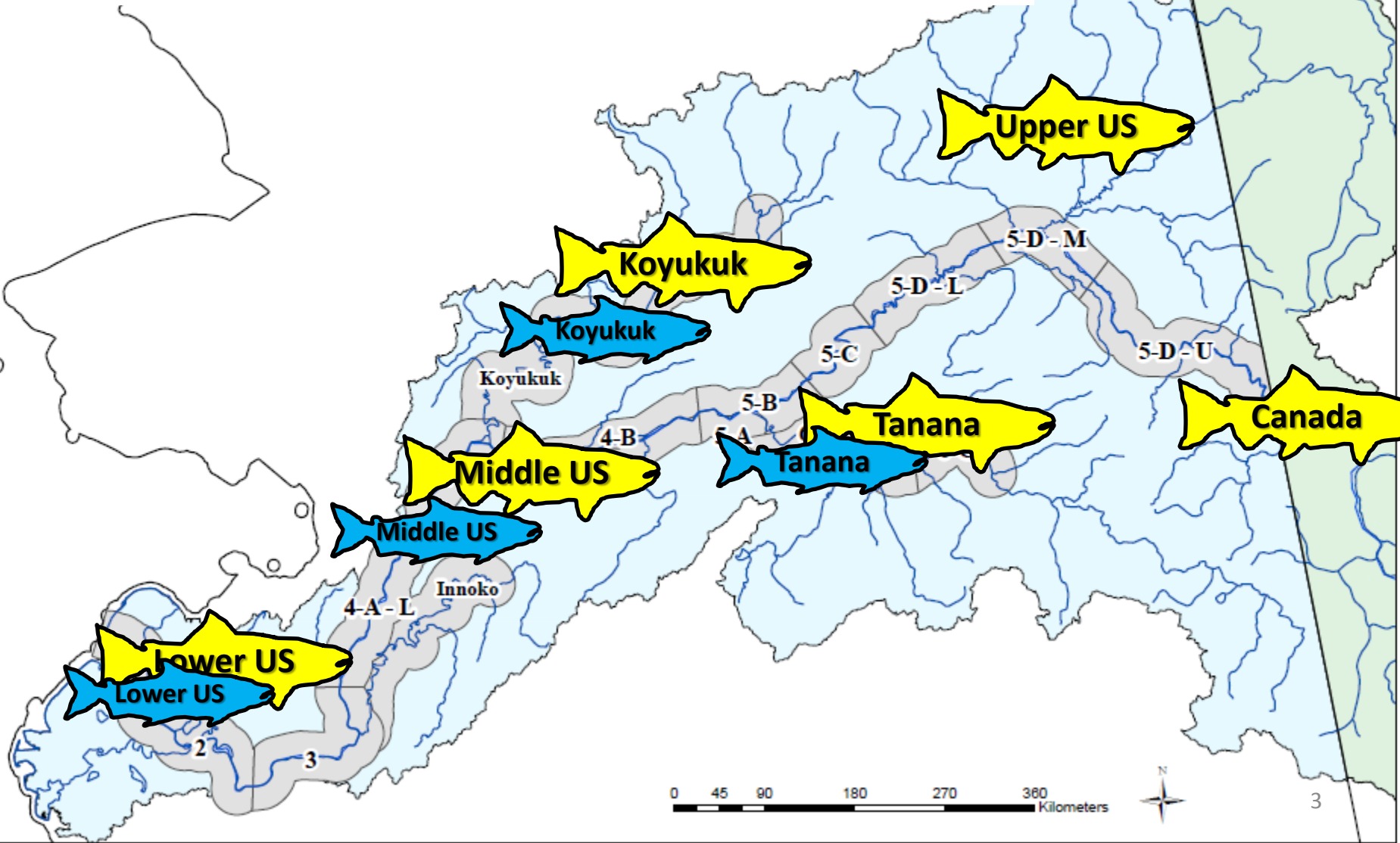
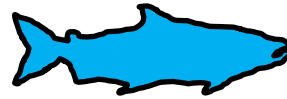
# Yukon River Fisheries Management Areas



King salmon stocks



Summer chum salmon stocks



# 2016 Chinook Outlook

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- 2016 Chinook outlook: 65,000 – 88,000 Canadian-origin Chinook salmon
  - Drainagewide : 130,000- 175,000 Chinook
- Likely to achieve escapement goals and harvest sharing objectives
- Conservative management approach with some increased opportunity for subsistence harvest if the runs strength warrants it
- Management driven by inseason assessment of run strength



# Potential 2016 Allowable Catch Ranges

## Canadian-Origin Chinook Salmon

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|                                 | <b>Lower</b> | <b>Upper</b> |
|---------------------------------|--------------|--------------|
| Pre-Season Run Size Outlook     | 65,000       | 88,000       |
| Spawning Escapement Goal (IMEG) | 42,500       | 55,000       |
| Total Allowable Catch           | 10,000       | 45,500       |
| Canadian Allowable Catch        | 2,300        | 10,500       |
| US Allowable Catch              | 7,700        | 35,000       |

# Subsistence Management Actions

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## Very early season:

- Salmon fishing closed before first pulse entered
- Selective gear opportunity for summer chum provided earlier than 2015

## Once abundance indicated run above lower end:

- Reduced regulation subsistence fishing schedule with 6" gillnets & retention from fish wheels

## Once abundance indicated run at upper end of forecast:

- Short, surgical opportunity with 7.5" gillnets most districts

# 2016 Summer Chum Outlook

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- Run outlook : 1.3 – 1.8 million
- Sufficient for escapement goals and subsistence needs
- Potential surplus for commercial harvest of 450,000 to 950,000

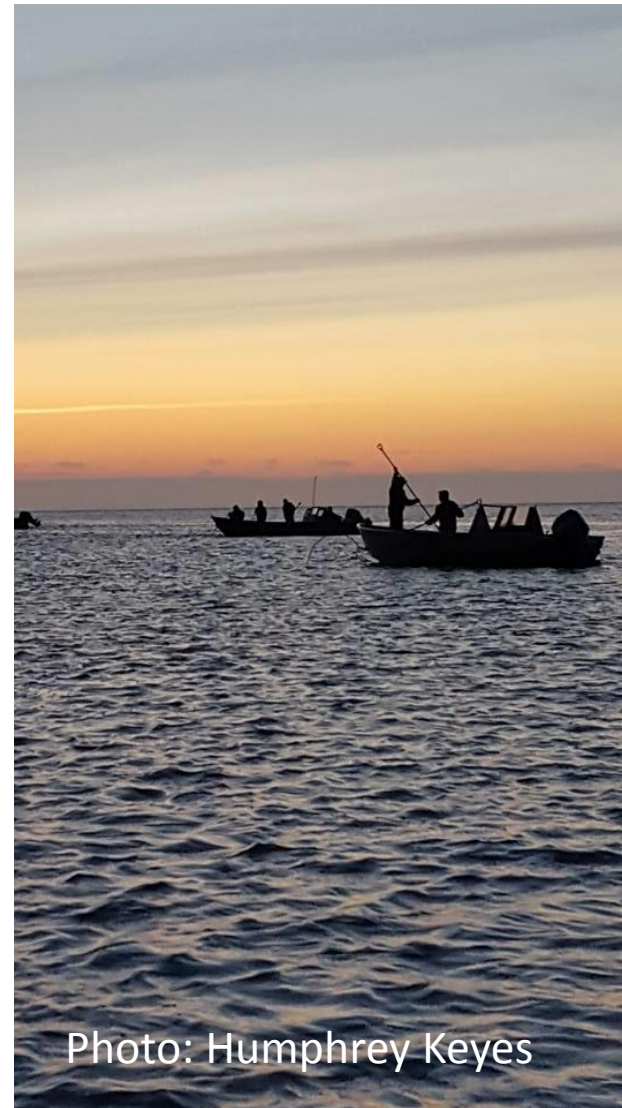


Photo: Humphrey Keyes

# Summer Chum Commercial Management

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- No sale of Chinook salmon
- Selective gear types to start: dip nets, beach seines (live release)
- First gillnet openings limited to Y1 with 5.5" by 30 mesh deep in the South Mouth only
- 6" or smaller mesh gillnets (once 90% of chinook run passed)



# Mainstem Summer Chum Commercial Harvest

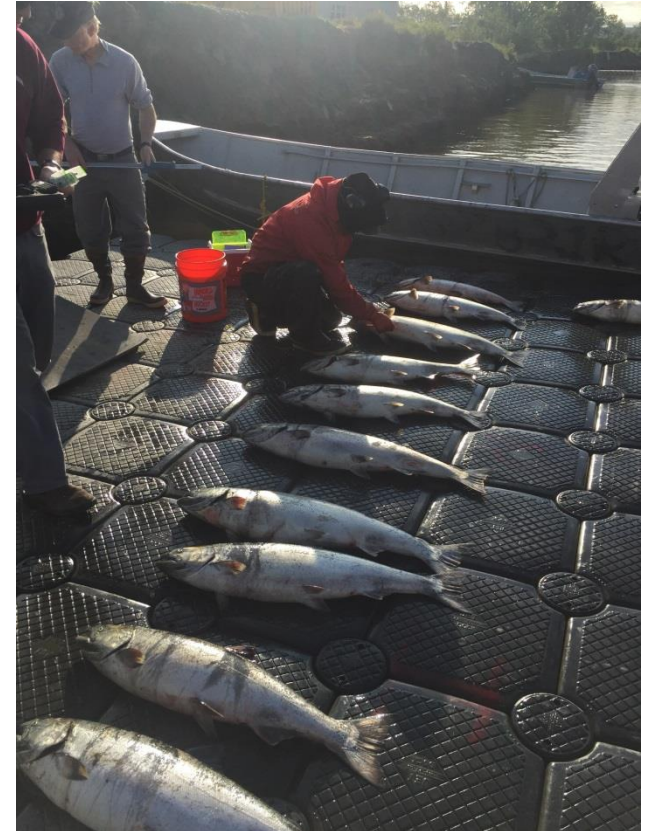
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| <b>Gear</b>                                  | <b>Summer Chum Harvested</b> | <b>Chinook Released alive</b> | <b>Chinook Kept for subsistence</b> |
|--|------------------------------|-------------------------------|-------------------------------------|
| <b>Dip Net &amp; Beach Seine (selective)</b> | <b>181,100</b>               | <b>8,200</b>                  |                                     |
| <b>Gillnet</b>                               | <b>340,700</b>               |                               | <b>5,400</b>                        |
| <b>Total</b>                                 | <b>521,800</b>               |                               |                                     |

# Inseason Run Assessment

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- Most projects started early in anticipation of early run
- Frequent reports from subsistence fishermen and catches in LYTF meant salmon fishing closed well before first pulse
- LYTF performed well for run timing, pulse detection, relative abundance



# Pilot Station Sonar Performance

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- Chinook represent a small number relative to total number of fish passing the sonars
  - 2015: total of 3.4 M fish, Chinook were 3% of that estimate
  - “others”= 1.3 M and S. Chum= 1.4 M
- Pre-season changes to apportionment model reduced the over-apportionment of “others”
  - Used updated selectivity curves for whitefish
  - Capped the number of “cisco” that could be apportioned

Re-run prior to the season: all years with new methods 1995-2015:

- Increased Chinook and summer chum estimates and decreased “others”.
- E.g. 2015 estimate of Chinook was 116,000, went to 145,000

# 2016 Pilot Station Sonar Performance

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- Chinook estimate : 175, 895
- Summer Chum: 1.9 M
- Genetic Stock ID sampling in test fishery performed well with largest number of Chinook samples since 2009 (Funded by YRP R&E)
- Canadian stock measured at Pilot ~43% (slightly above average)
- Inseason projections based on estimated proportion of Canadian stock matched up very well with passage at Eagle



# Summer Chum Escapement

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| Escapement project       | Current goal      | 2016            |
|--------------------------|-------------------|-----------------|
| EF Andraefsky River Weir | >40,000           | <b>50,362</b>   |
| Anvik River Sonar        | 350,000–750,000   | <b>337,821</b>  |
| Drainage-wide            | 500,000–1,200,000 | <b>1.85 M +</b> |

# Chinook Escapement

| Escapement project       | Current goal    | 2016         |
|--------------------------|-----------------|--------------|
| EF Andraefsky River Weir | 2,100 – 4,900   | <b>2,676</b> |
| Eagle sonar              | 42,500 – 55,000 | 72,325       |



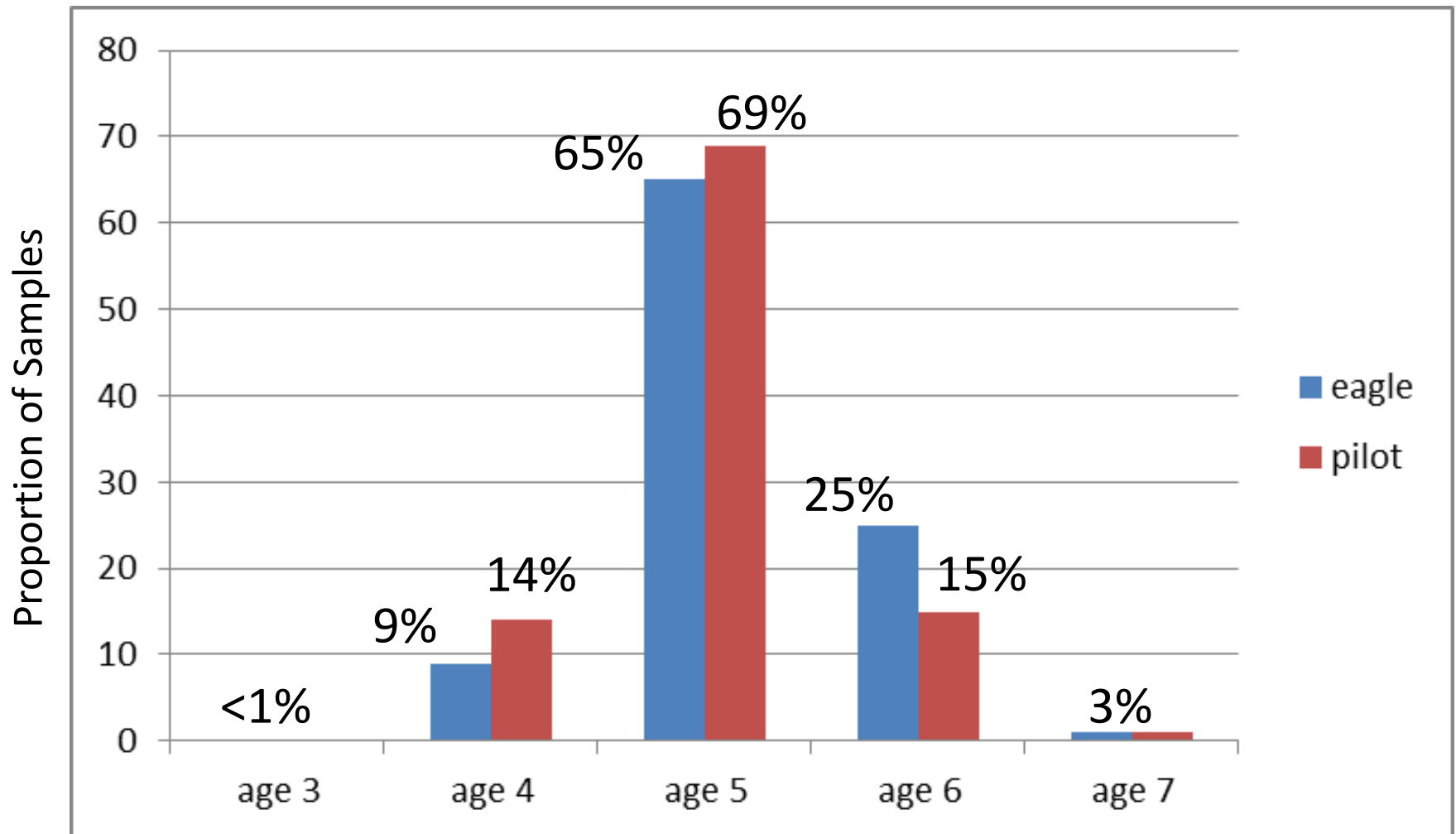
# Chinook Stock Composition

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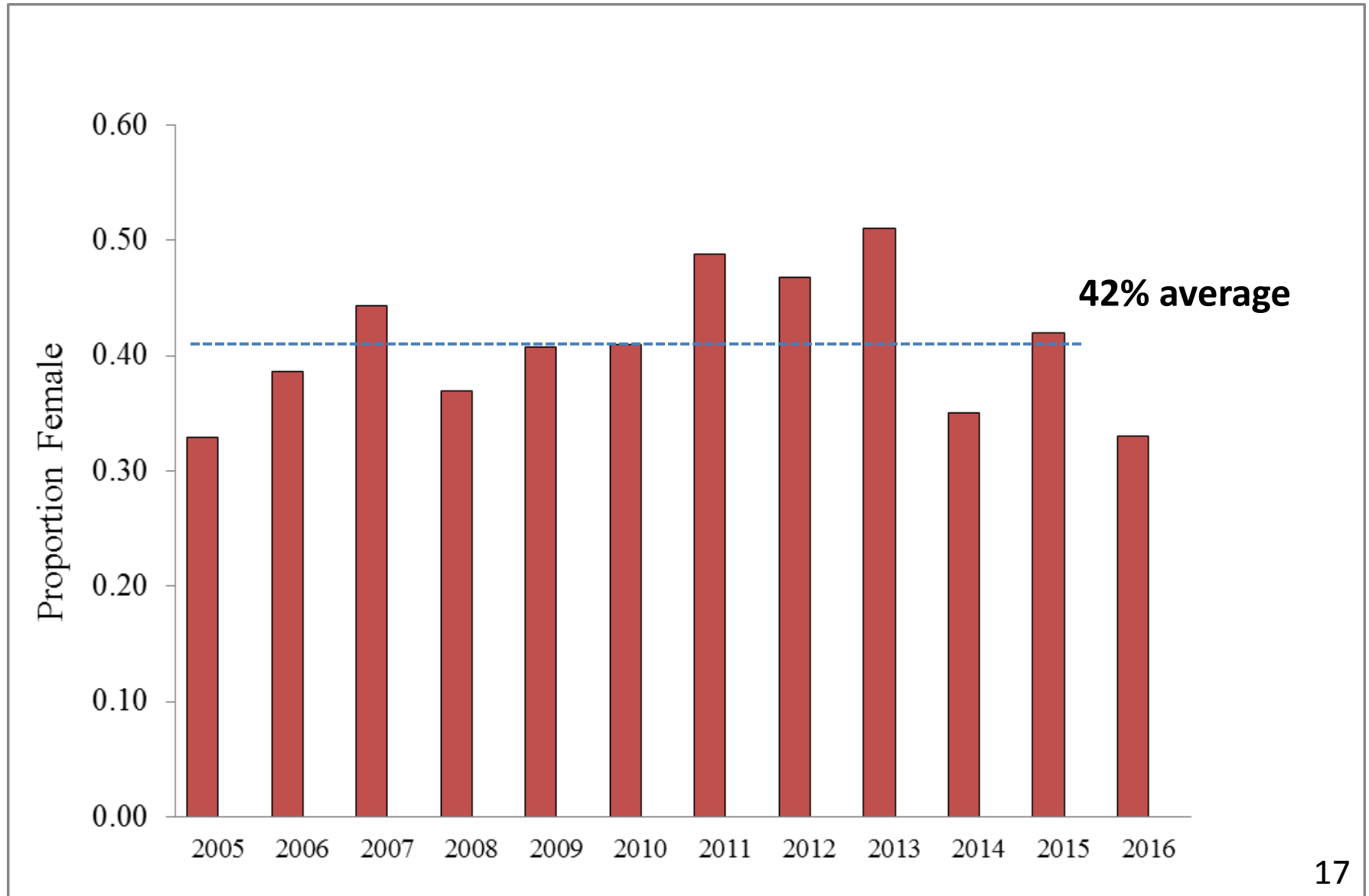
# Chinook Age Composition by Proportion

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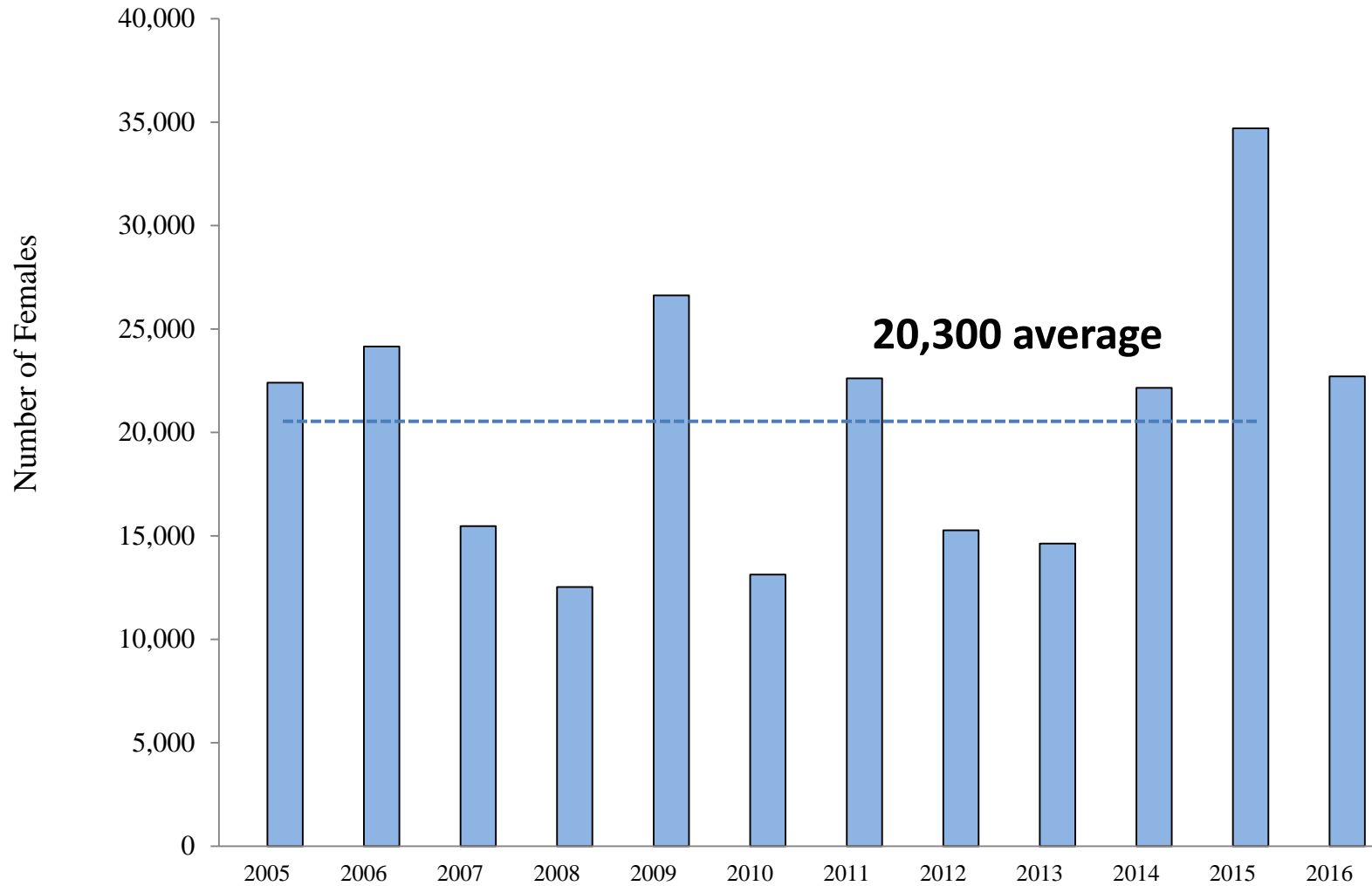
# Chinook Canadian Escapement- Females

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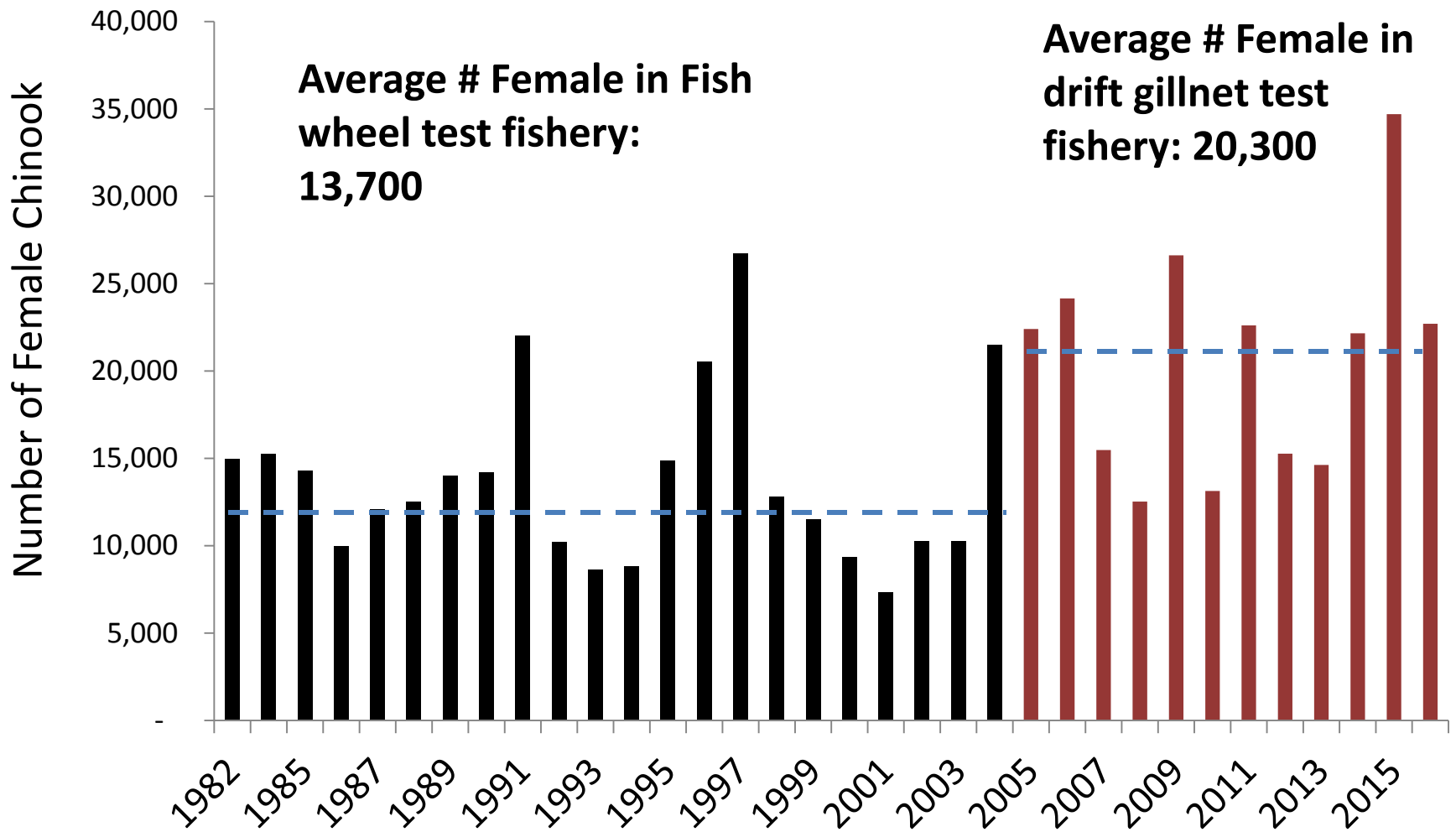


# Chinook Canadian Escapement- Females

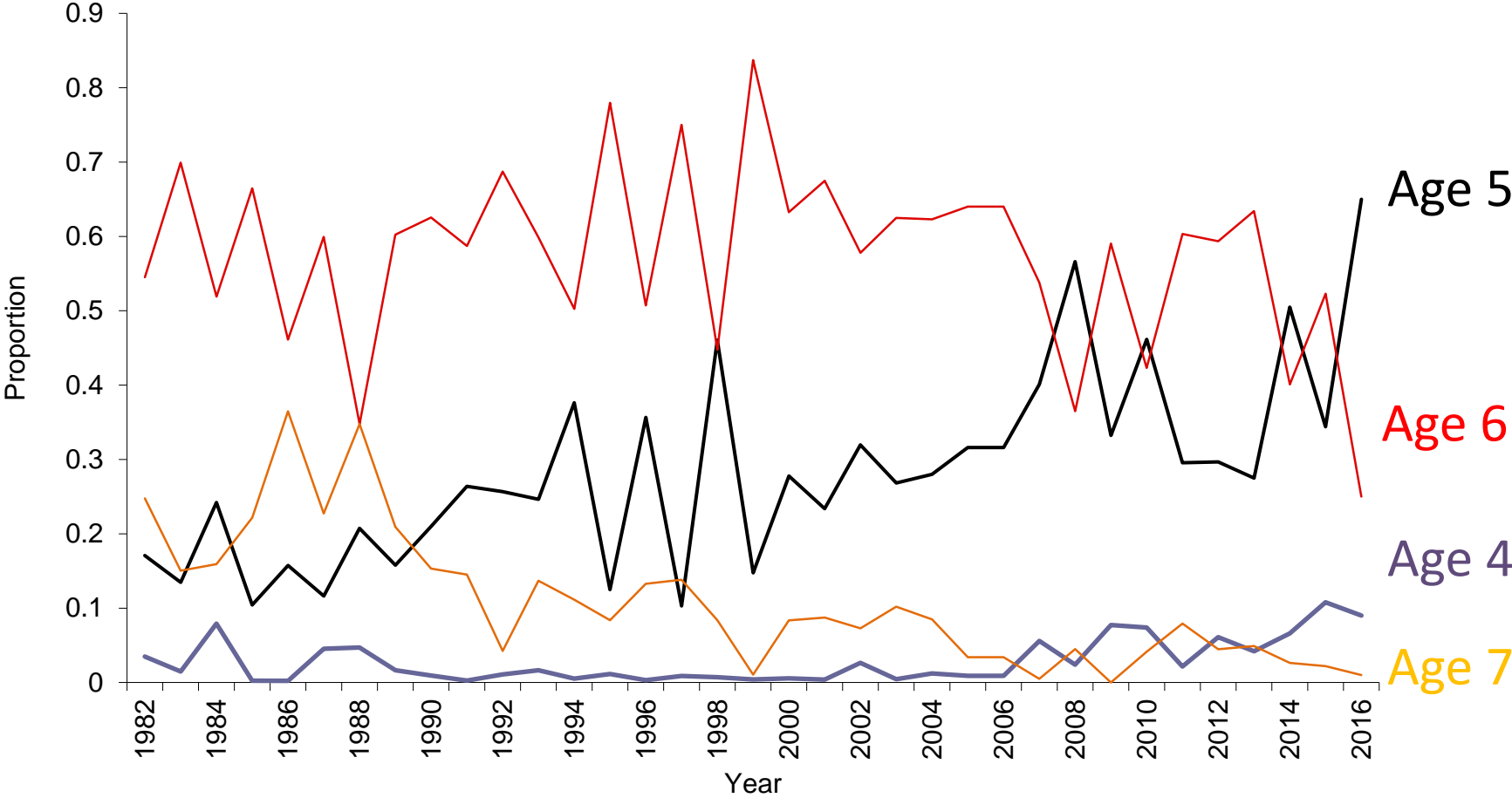
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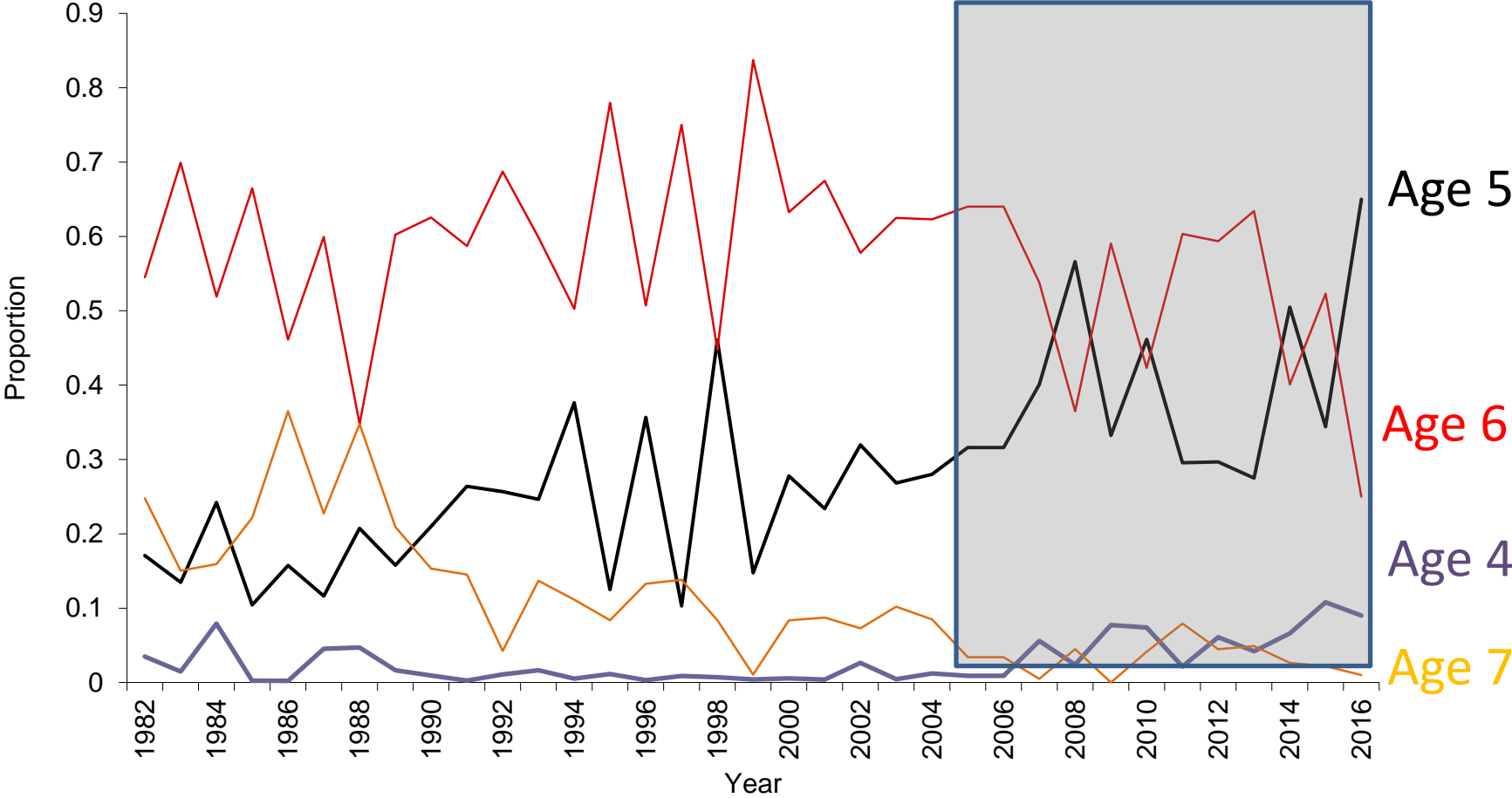
# Chinook Canadian Escapement- Females



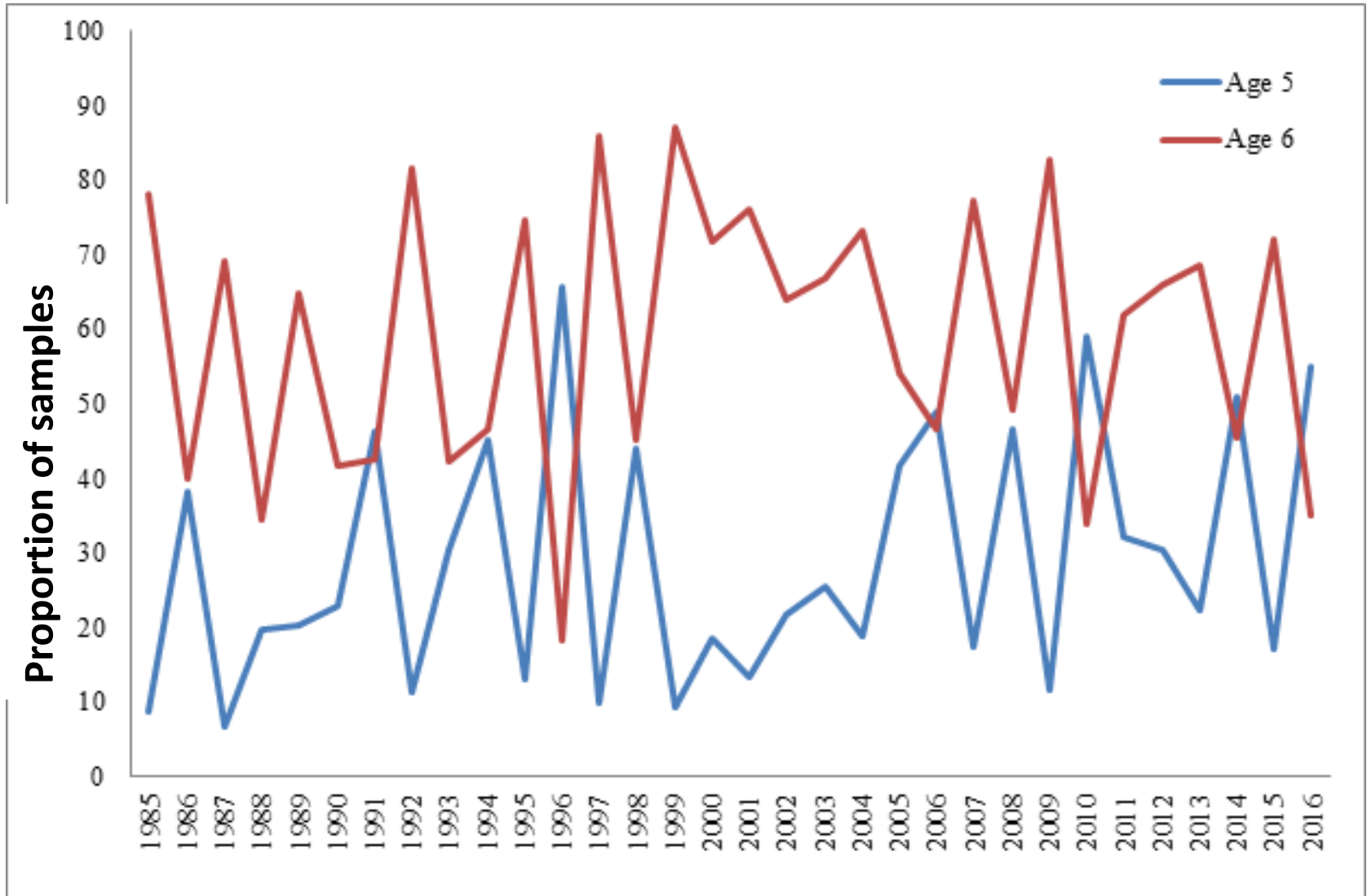
# Canadian Chinook Escapement Age Comp



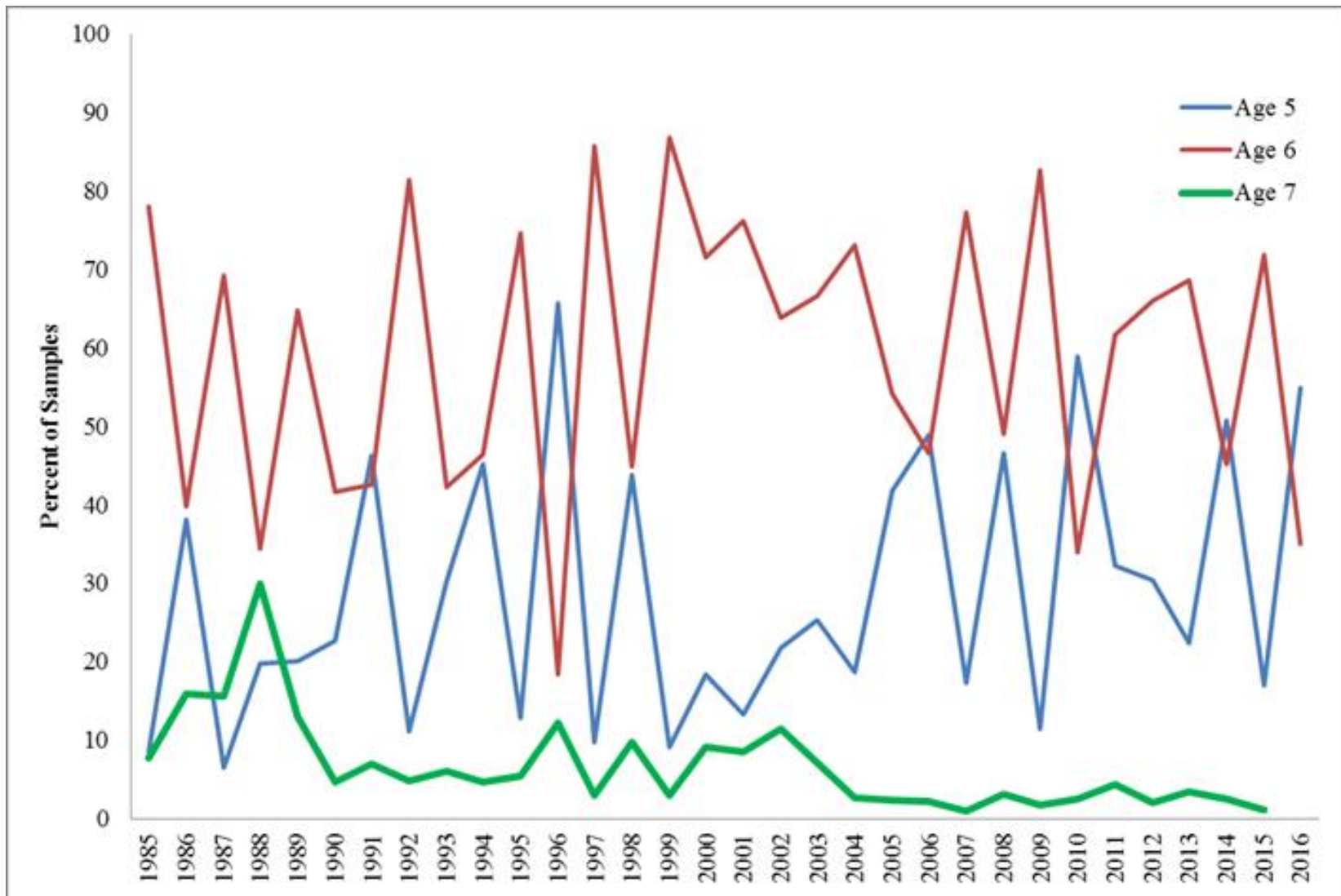
# Canadian Chinook Escapement Age Comp



# LYTF Age Composition Chinook (all stocks)



# LYTF 8.5" Set Gillnet Chinook Age Comp



# Alaska Chinook (all stocks) Subsistence Harvest

| Average 2005–2014 | 2014  | 2015  | PRELIMINARY 2016 |
|-------------------|-------|-------|------------------|
| 37,000            | 3,300 | 7,300 | 20,000?          |

- Includes Chinook received from test fisheries: 1,244
- Includes Chinook kept from commercial gillnet openings: 5,500



# PRELIMINARY Management report card

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|                                 | Preseason projections |        | Post Season      |
|---------------------------------|-----------------------|--------|------------------|
|                                 | Lower                 | Upper  | Prelim Estimates |
| Pre-Season run size             | 65,000                | 88,000 | 82,300           |
| Spawning Escapement Goal (IMEG) | 42,500                | 55,000 | 68,800           |
| Total Allowable Catch           | 10,000                | 45,500 |                  |
| Canadian Allowable Catch        | 2,300                 | 10,500 | 2,769            |
| U.S. Allowable Catch            | 7,700                 | 35,000 | 10,800           |

# With thanks....



Photo: USFWS Katrina Mueller

## To the federal and state management team!

# ....and Gratitude



To the fishermen of Yukon for their compliance and conservation efforts!

# Questions?

