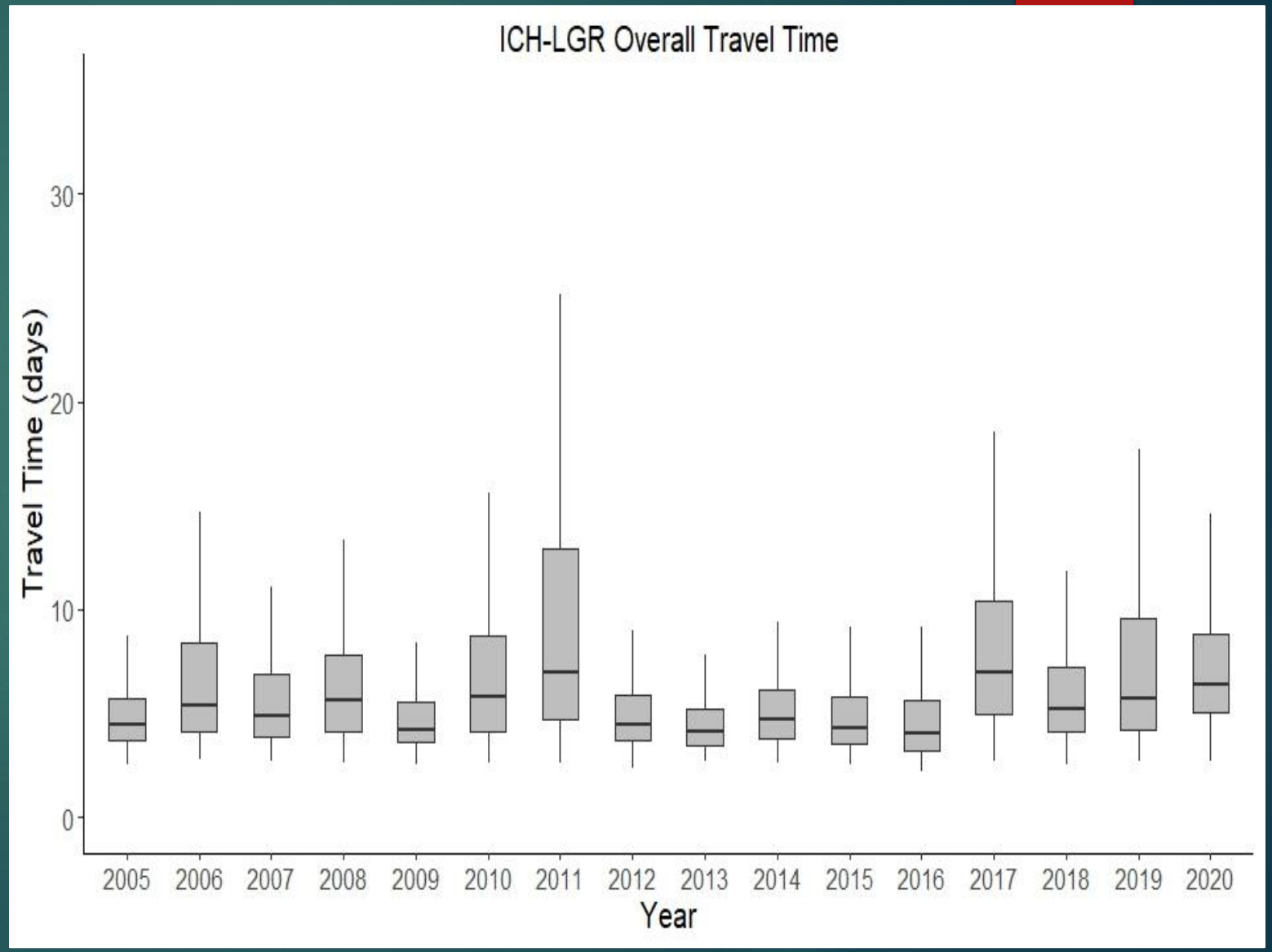
Snake River adult migration 2020

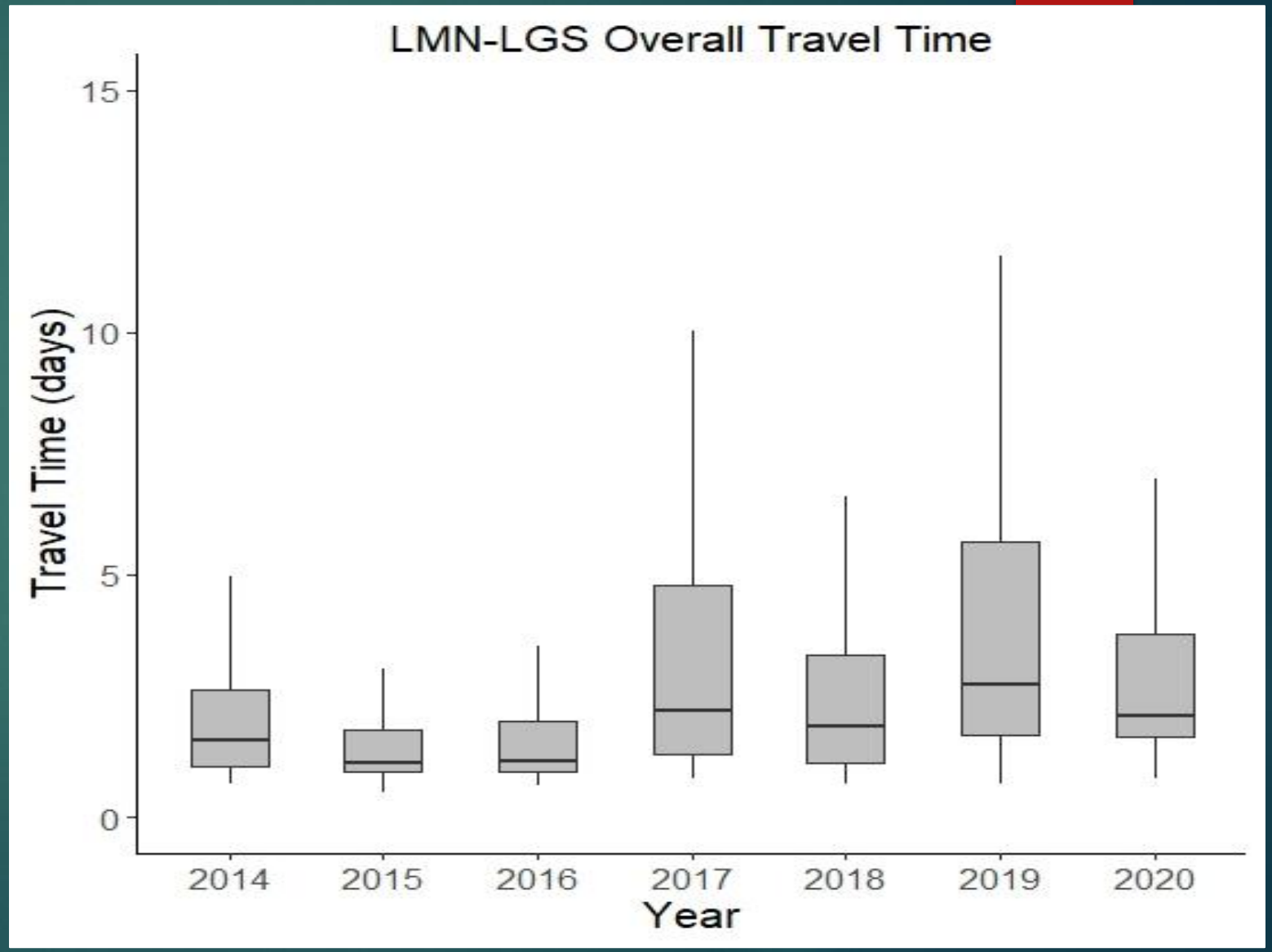
Travel Times

- ICH-GRA travel times were similar to the past three years, but slightly above the ten year average
- 2020 median travel time: 6.3 days (ICH-GRA)
- Range from 2005-2020: 4.0-7.0 days (ICH-GRA)

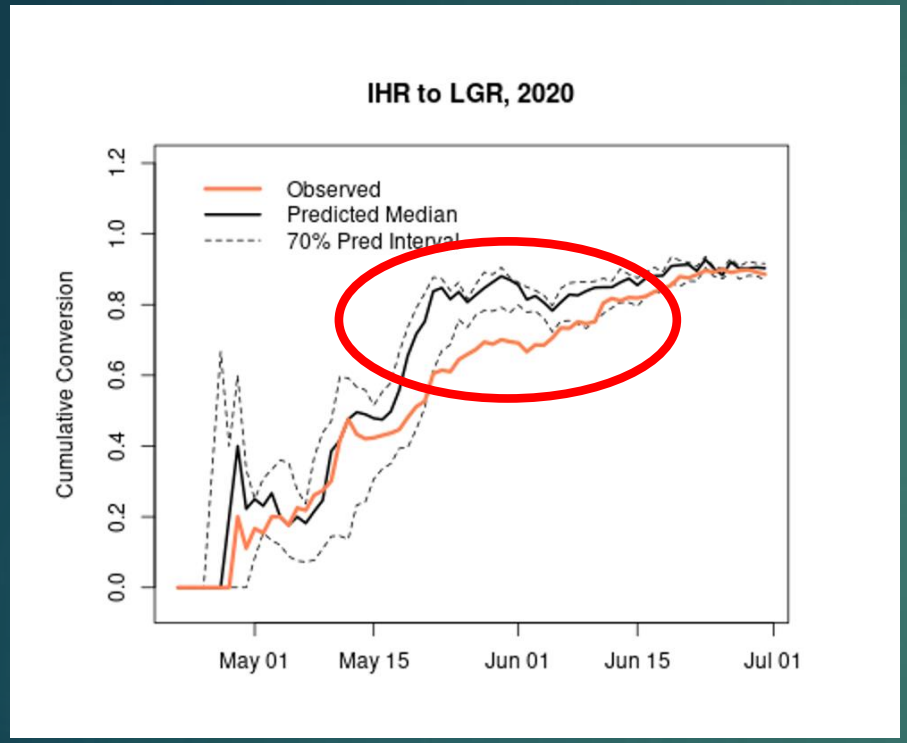


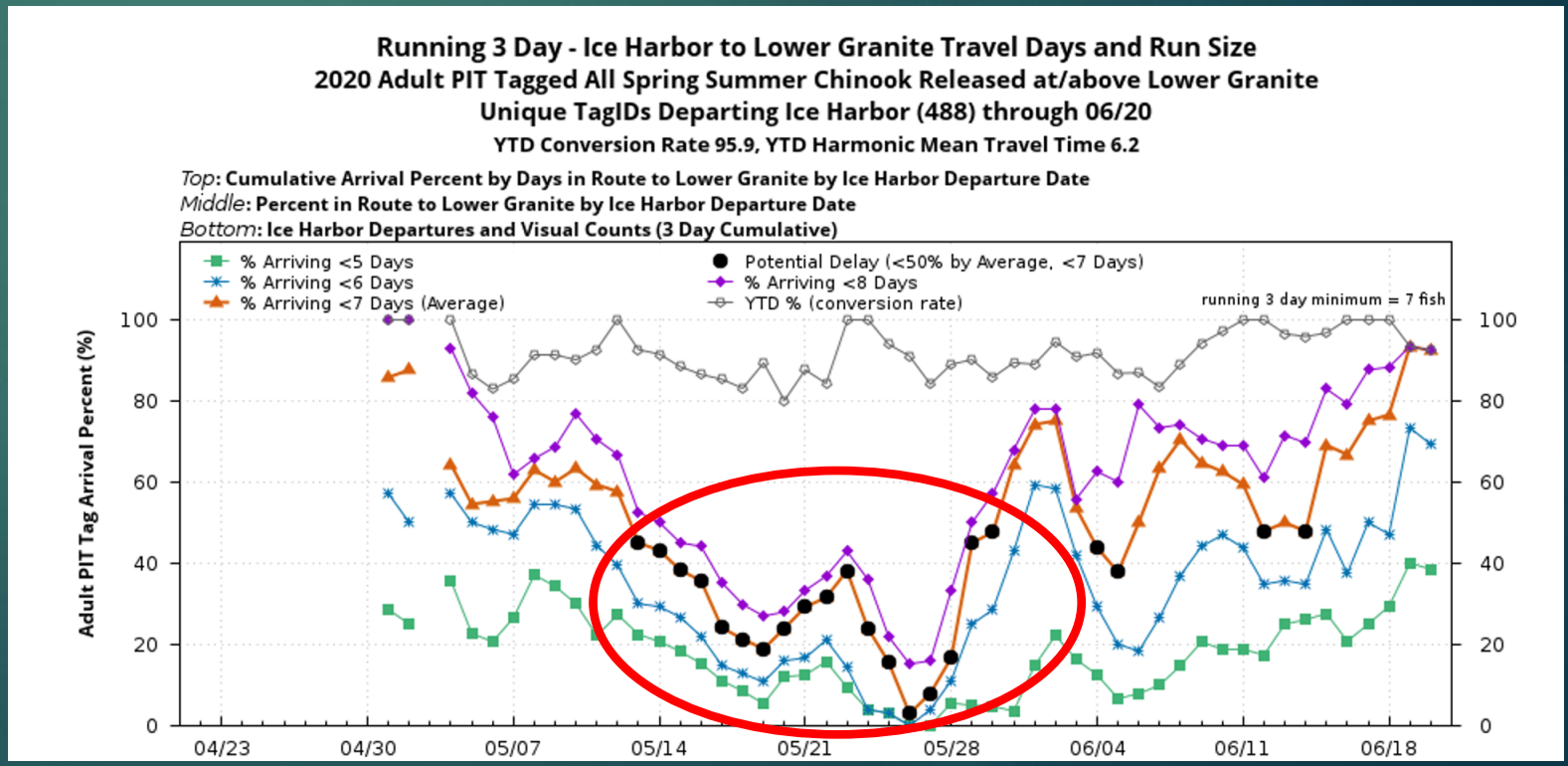
Travel Times

- LMN-LGS travel times were slightly faster than last year, but slightly slower than the 2014-2019 average
- 2020 median travel time: 2.1 days (LMN-LGS)
- Range from 2014-2020: 1.1-2.7 days (LMN-LGS)

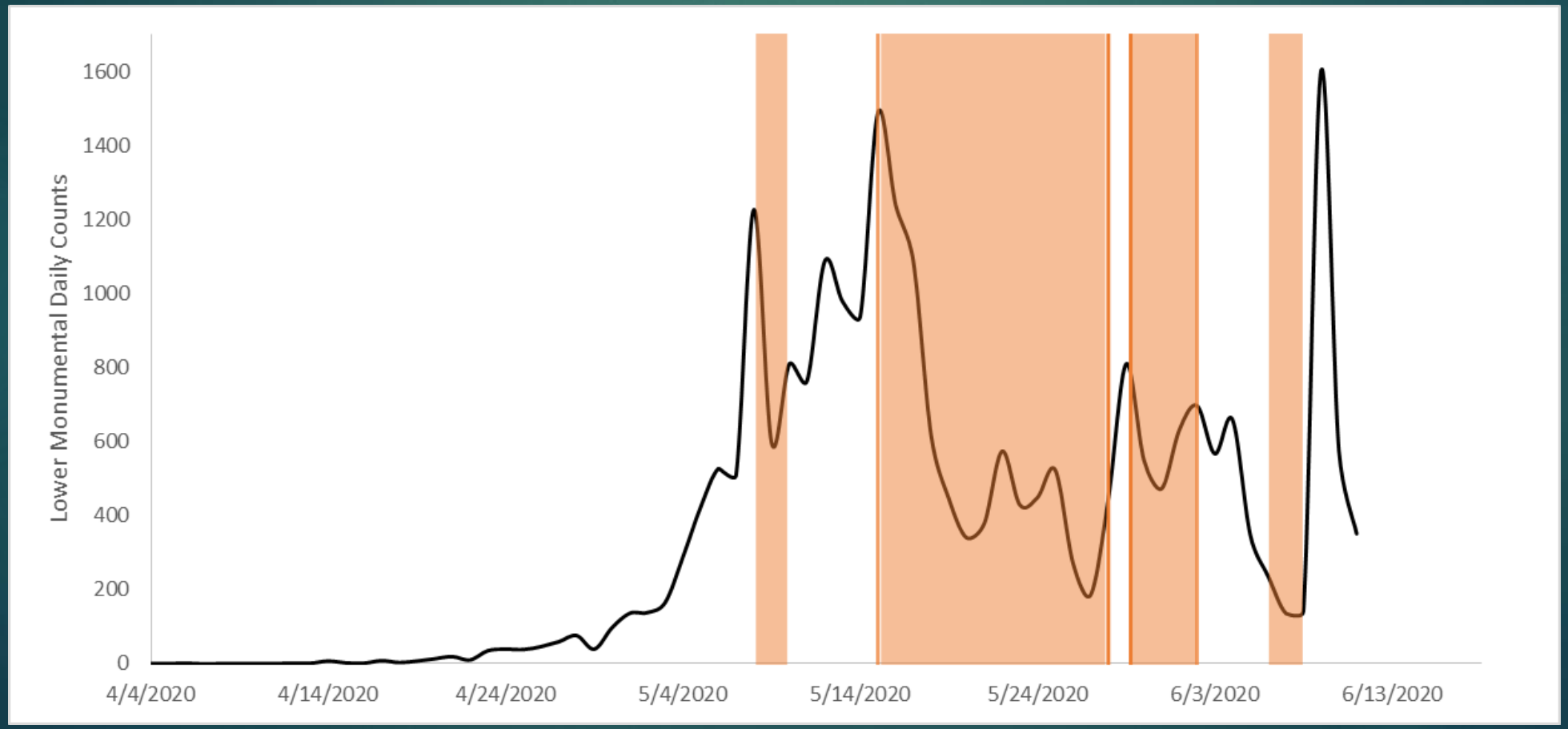


Potential delay

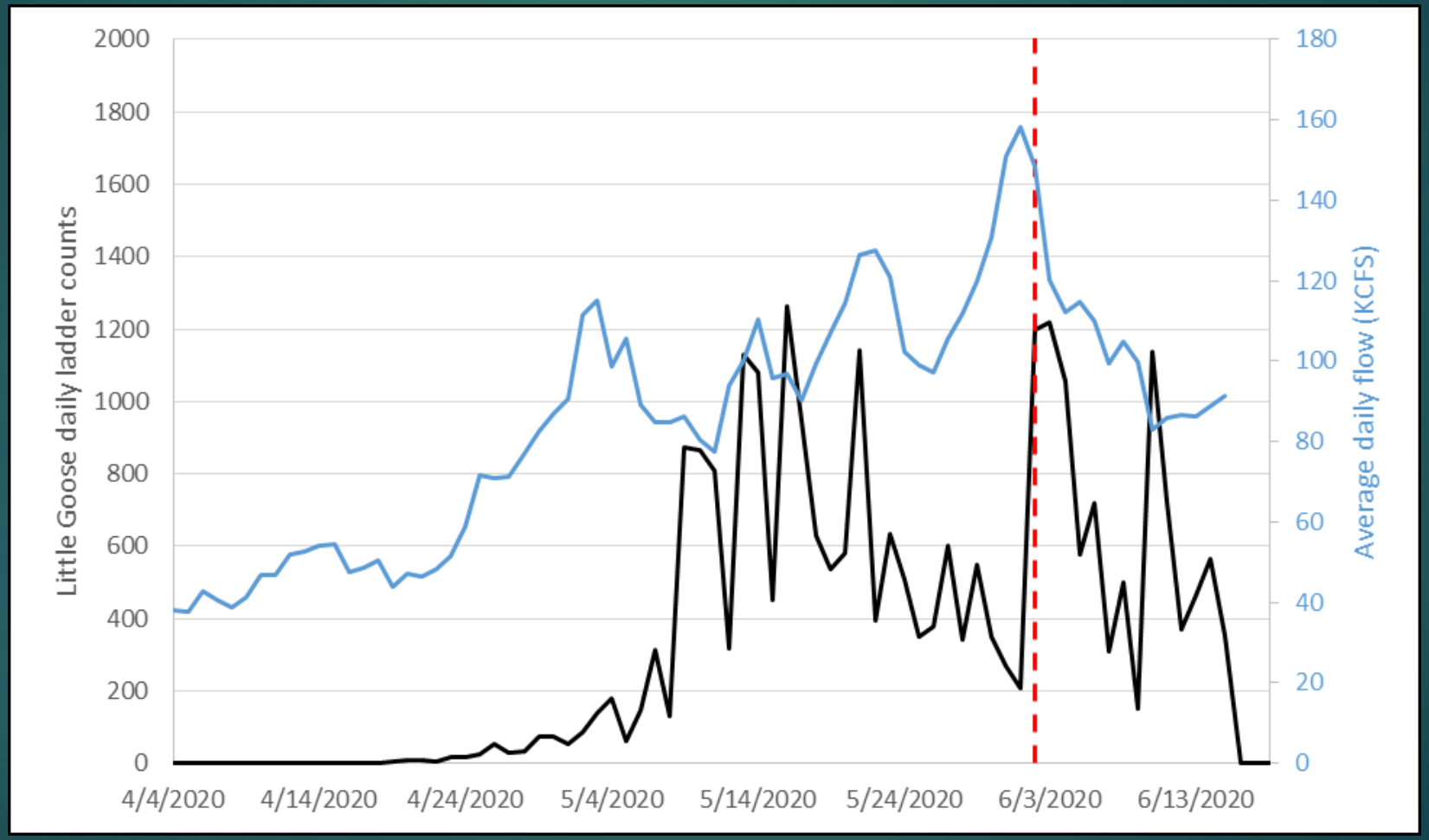




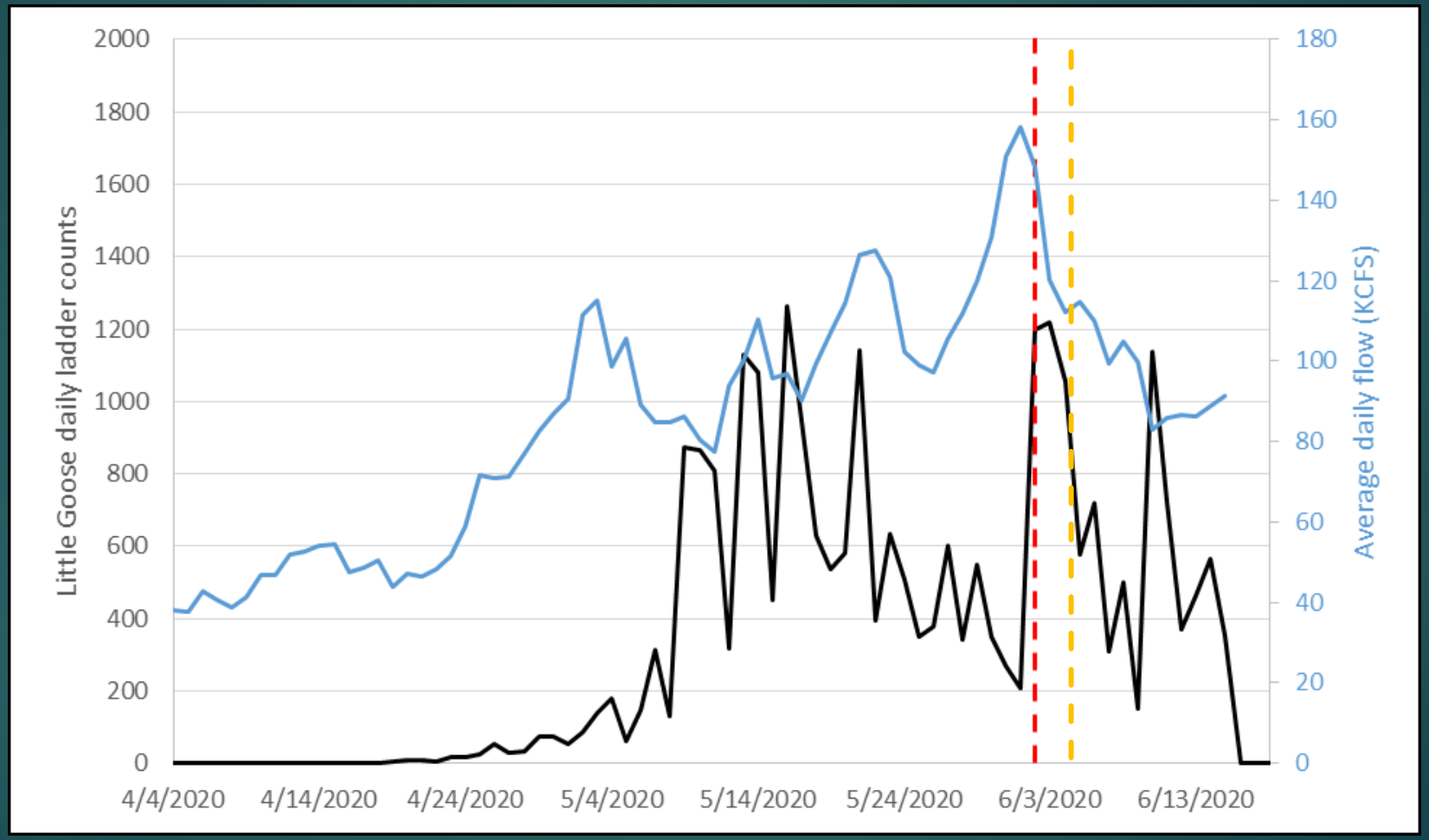
LMN counts –
Orange = no AM performance spill provided



LGS counts –


Little Goose daily ladder counts
Average daily flow (KCFS)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
180
160
140
120
100
80
60
40
20
0
4/4/2020
4/14/2020
4/24/2020
5/4/2020
5/14/2020
5/24/2020
6/3/2020
6/13/2020

LGS counts –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0
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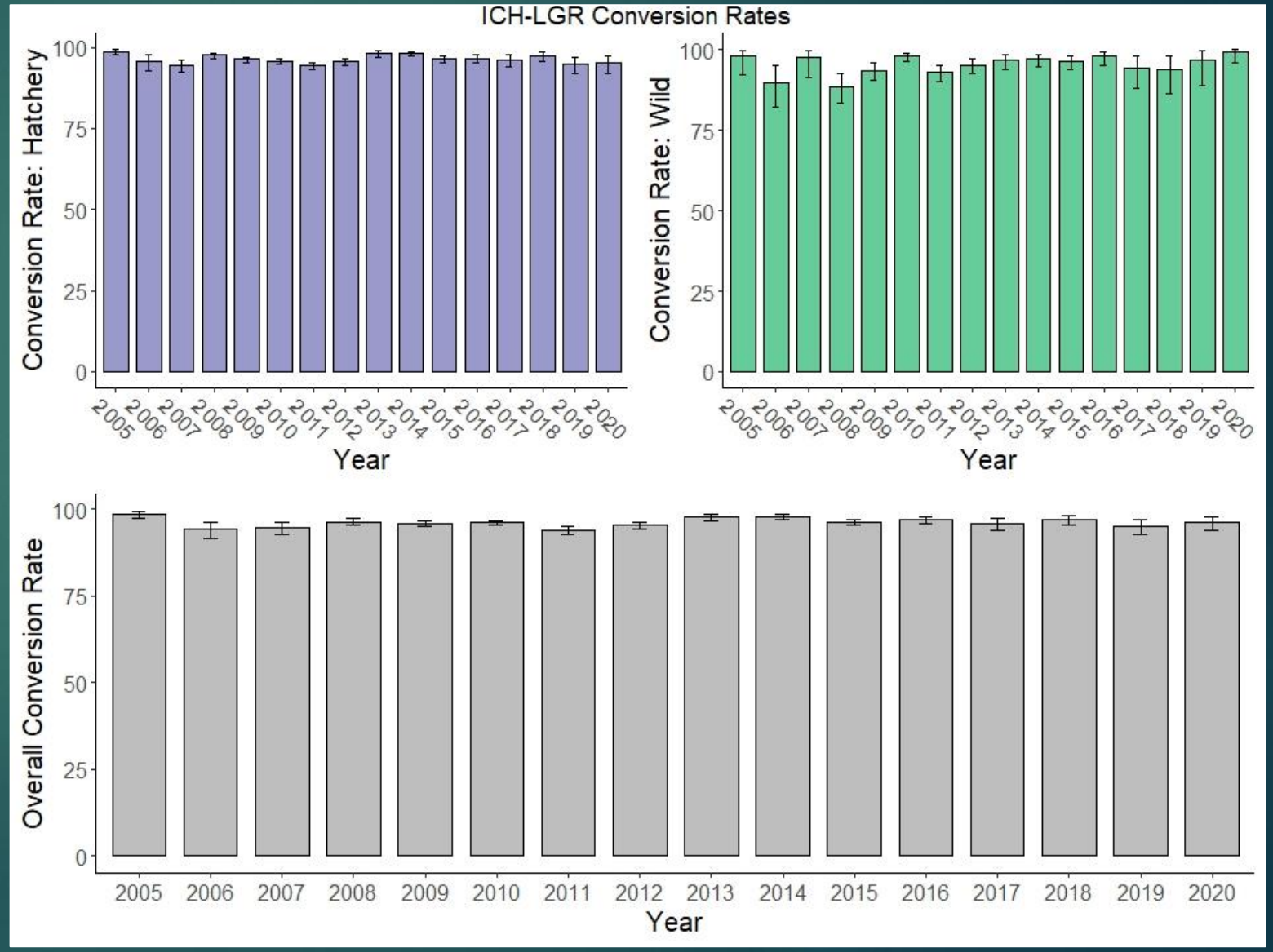
4/14/2020
4/24/2020
5/4/2020
5/14/2020
5/24/2020
6/3/2020
6/13/2020

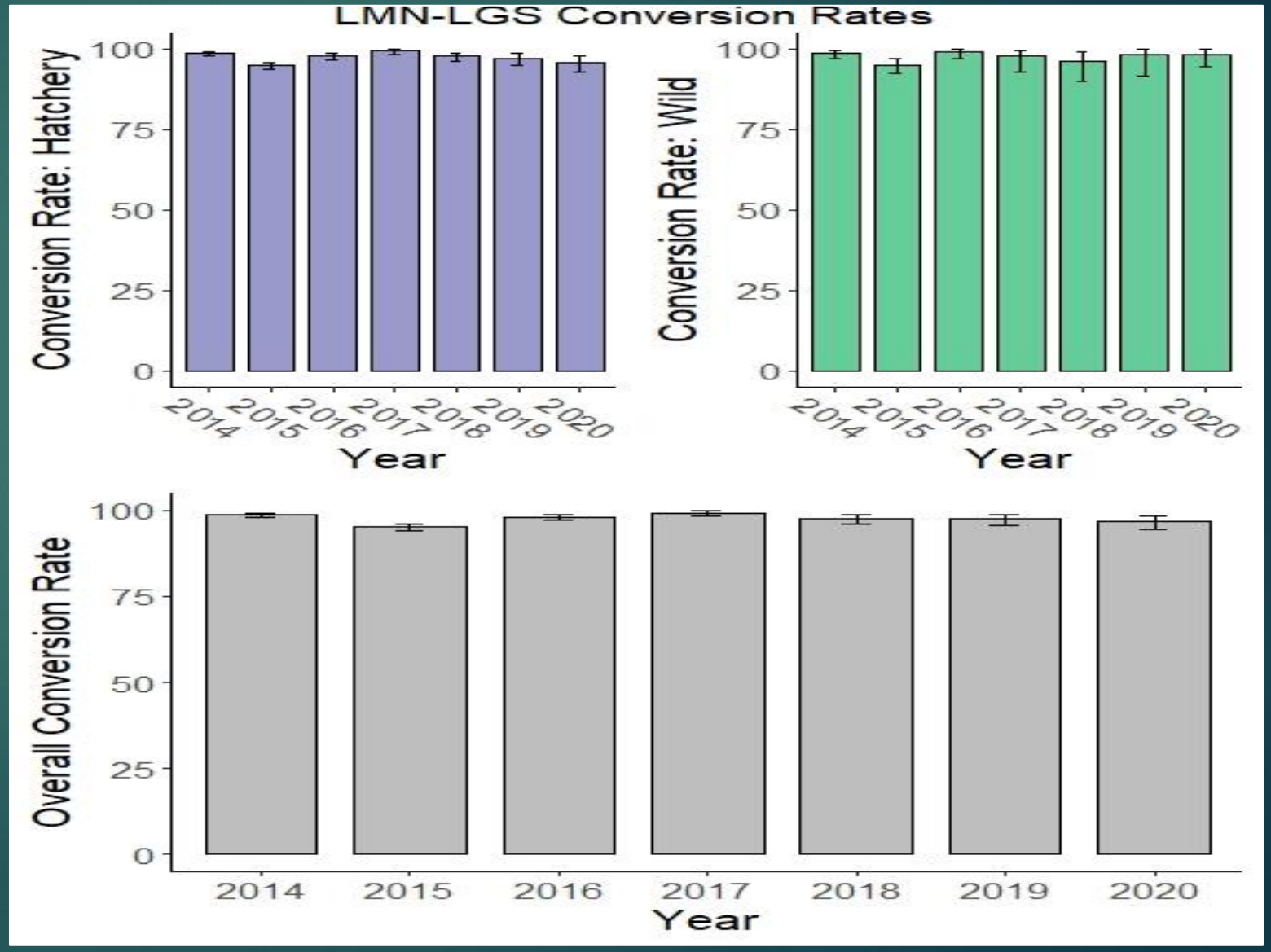
Conversion Rates

- Snake River Spring Chinook continue to convert at a very high rate
- 2020 YTD Conversion: 96.4% (ICH-GRA)
- Range from 2005-2020: 94.0 – 98.6% (ICH-GRA)



Conversion Rates

- Snake River Spring Chinook continue to convert at a very high rate
- 2020 YTD Conversion: 96.7% (LMN-LGS)
- Range from 2014-2020: 95.0 – 99.3% (LMN-LGS)



Conclusions:

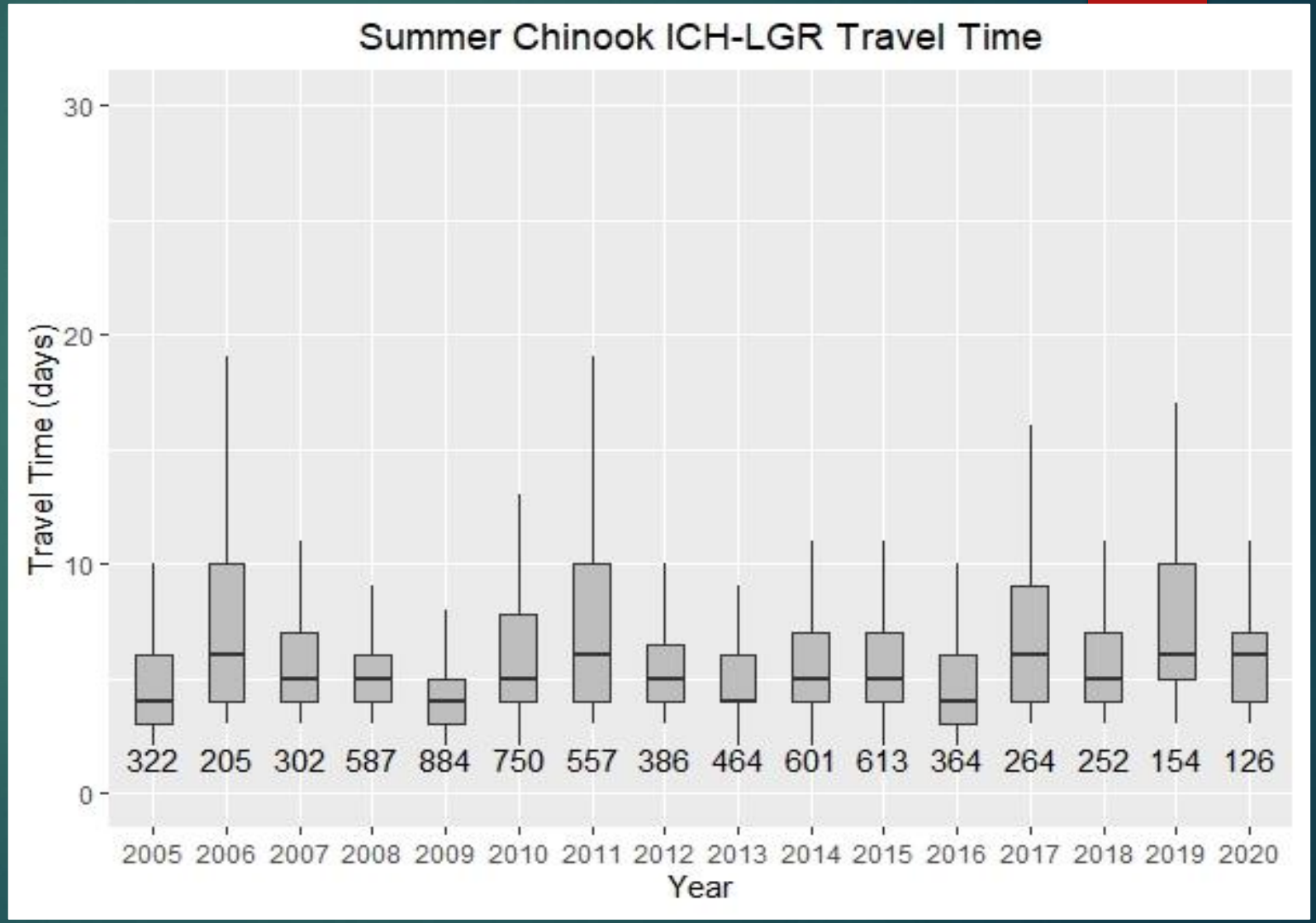
Timing of performance spill and bulk spill pattern can impact counts at LMN

Timing of performance spill and ASW position can impact counts at LGS

Implementation of flex spill did not significantly affect SPCH conversion rates through the lower Snake River

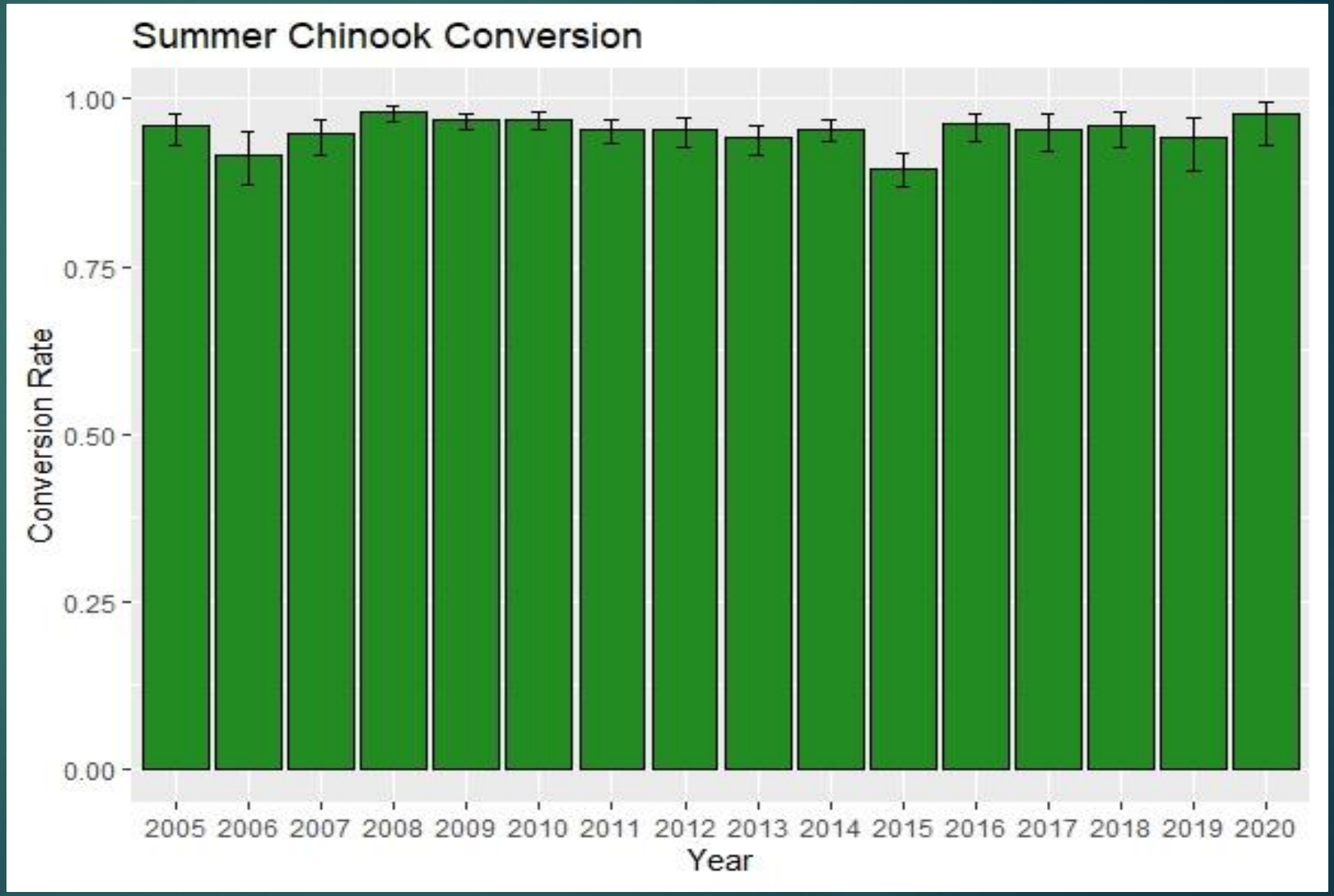
Summer Chinook Travel Times

- ICH-GRA travel times were similar to previous years, though slightly faster on average than 2019
- 2020 median travel time: 7.4 days (ICH-GRA)



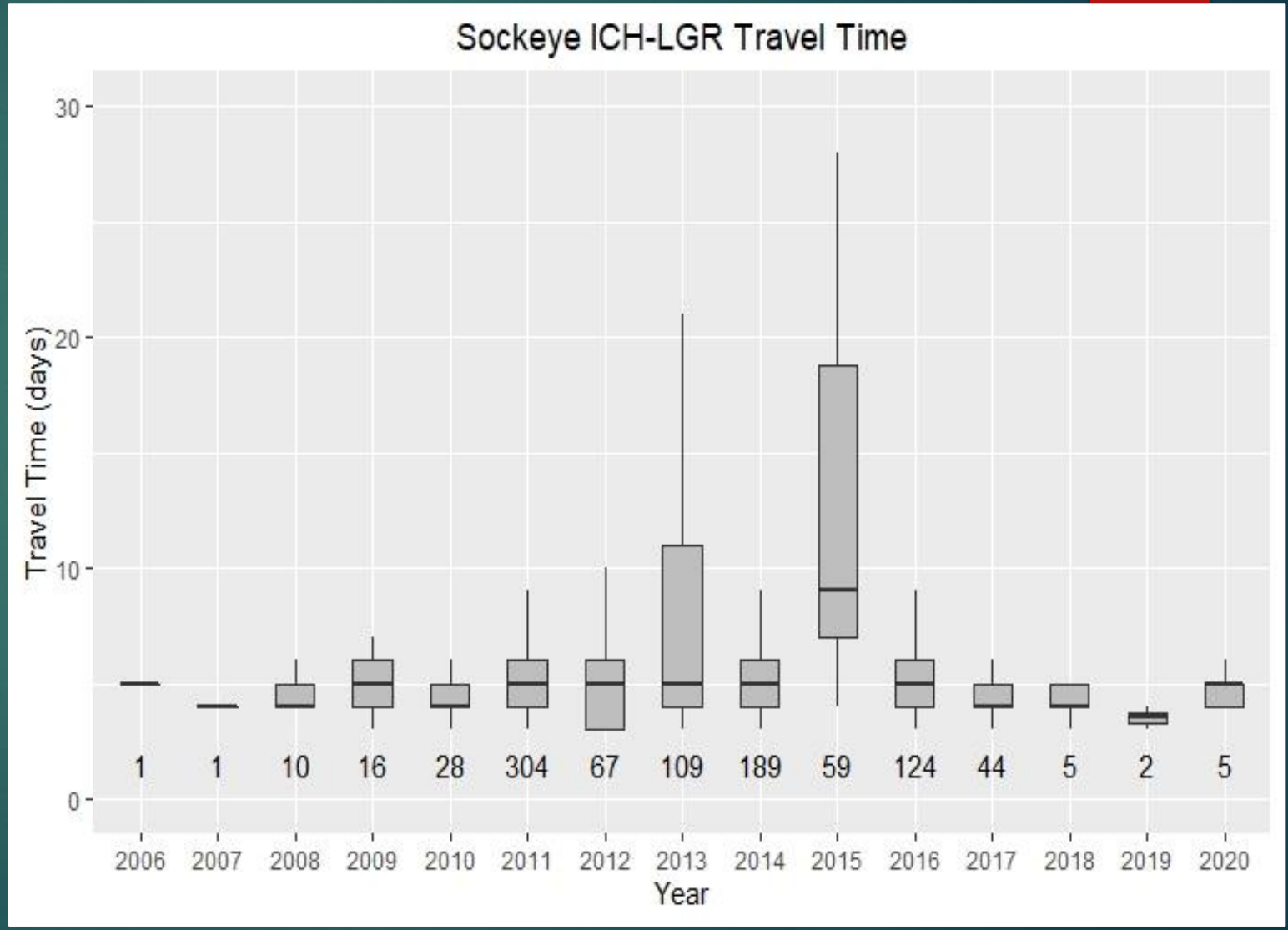
Summer Chinook Conversion Rates

- Snake River Summer Chinook continue to convert at a very high rate
- 2020 YTD Conversion: 97.6% (IHR-LGR)
- Range from 2014-2020: 89.7 – 98.1% (LMN-LGS)



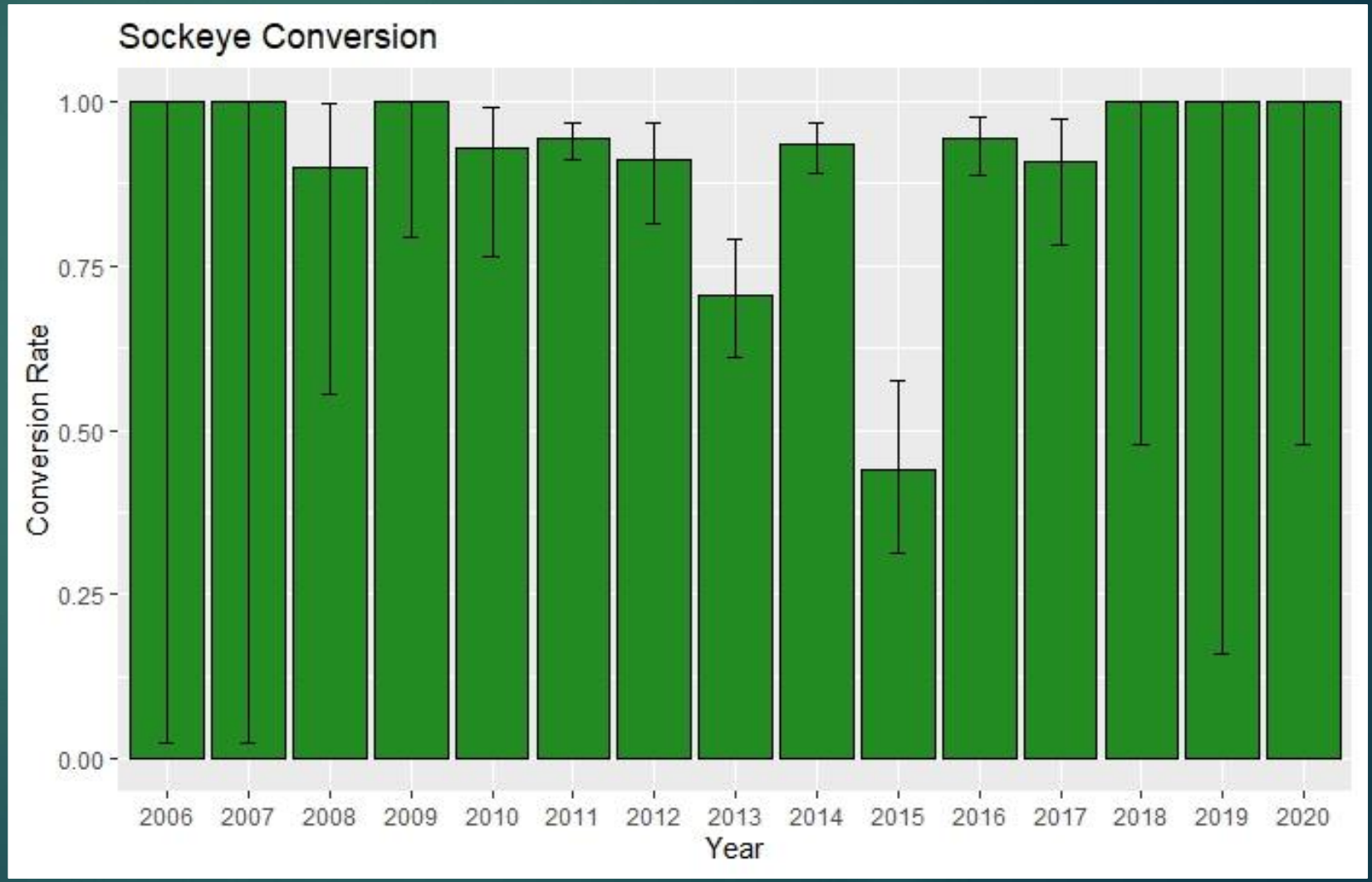
Sockeye Travel Times

- ICH-GRA travel times were similar to previous years
- Very low sample sizes
- 2020 Median travel time: 5 days



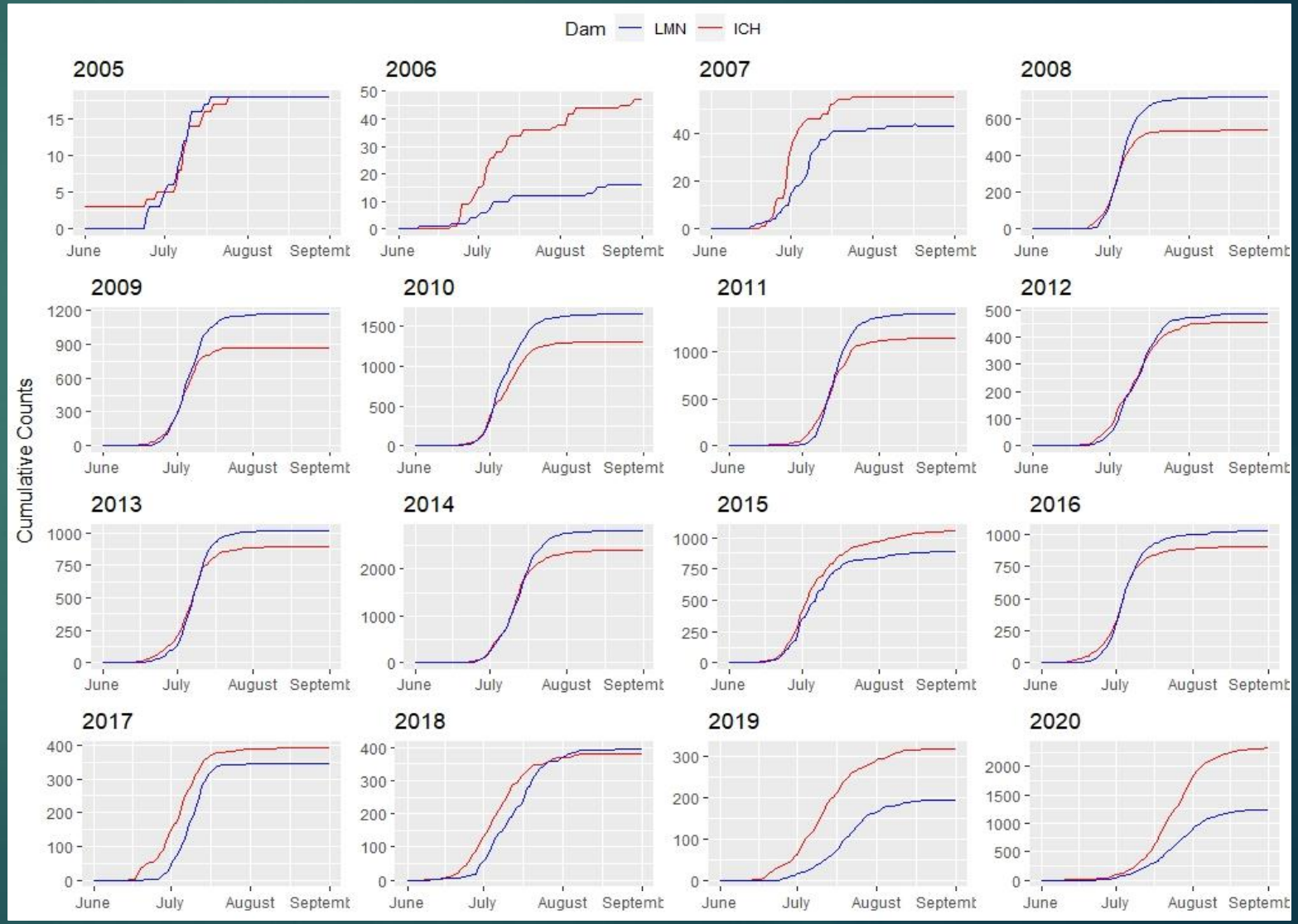
Sockeye Conversion Rates (PIT tags)

- Very low sample sizes for PIT tagged Snake River Sockeye past 3-4 years
- 2020 YTD Conversion: 100% (IHR-LGR)
- Range from 2014-2020: 89.7 – 98.1% (LMN-LGS)



Conversion Rates (count based)

- Typically, LMN counts are higher than ICH counts (10 of 16 years)
- Conversion of 25% in 2019, 27% in 2020 (ICH-GRA)
- Multiple hypotheses: Columbia turn in, Fallbacks, Misidentification
- Limited data to determine which hypothesis is correct



Conclusions

- Summer Chinook had a very typical migration: Normal travel times, very high rate of conversion
- Limited data on sockeye: Both PIT tags and count based metrics have limitations.
  - Something has changed in the past two years, difficult to ascertain what that is with current data

Conversion Rates (count based)

- Little Goose to Granite conversion rates closer to historic averages
- Limited data to determine which hypothesis is correct