

**US Army Corps of Engineers Summary of Decision  
Suspension of 2025 Juvenile Fish Transport During Spring at Lower Monumental  
April 22, 2025**

**Proposal** – Consider ending juvenile fish transport at Lower Monumental Dam during spring.

**Description of Issue** – In order to transport juvenile salmon and steelhead at Lower Monumental Dam (LMN), fish passage spill is reduced at the request of barge operators to safely traverse the tailrace, tie off at the loading dock, load fish, and exit the loading dock to resume downstream travel. This spill reduction typically lasts for 1 to 3 hours during transport activities which occurs every day once transport starts in late April; then reduces to every other day beginning in mid-May, as the number of spring migrants collected for transport lessens. The current spring spill operation at LMN calls for 24-hour spill up to the 125% total dissolved gas (TDG) cap which is around 100 kcfs but varies depending on various environmental factors. During spill reductions for transport operations, spill is typically reduced to roughly 10-30 kcfs depending on river conditions.

**Supporting Information** – In 2024, a powerhouse outage occurred at LMN from May 1 to 9, which substantially reduced the number of fish being collected in the bypass system and subsequently transported. This in conjunction with the “ponding of water” to allow reduced spill for transport barge tailrace traverse and loading without increasing flow through turbine units (which affected reservoir elevations in both LMN and Ice Harbor (IHR) pools) resulted in many in-season management discussions at Technical Management Team (TMT) meetings. These discussions ultimately led to the Regional Implementation and Oversight Group (RIOG) convening on May 29, and following discussion, a decision was made to continue transport operations at 50% of planned frequency from June 1 until June 17. Additionally, there was a commitment to convene the Sr. Hydro Technical Team (SHTT) to review information to inform 2025 operations.

Subsequently, the SHTT team convened and assembled a RIOG briefing document that includes information on historical spill and transport operations along with summary slides of empirical data on Transport to Bypass and Transport to Spill ratios to determine if a benefit results from transporting spring migrants from LMN.

**Transport Options Considered**

- 1) Continue collection and transport operations at Lower Monumental Dam in 2025.
- 2) Eliminate collection and transport operations at Lower Monumental Dam in 2025.
- 3) Halve collection and transport operations (every 3<sup>rd</sup> and 4<sup>th</sup> day) at Lower Monumental Dam in 2025.

**Decision and Rationale** – Based on NOAA Fisheries’ recommendation and the summary of empirical data provided by the SHTT, the Corps will implement spring transport at LMN in 2025. It is evident from the slides presented by NOAA Fisheries (attached), that if fish are collected in

the bypass system, transporting them generally results in greater SARs than returning the fish to the river to migrate in-river. State and tribal participants shared additional perspectives at both SHTT and RIOG. These perspectives were received and considered by the federal agencies prior to the Corps making a final decision.

The Corps understands the concerns expressed by RIOG members regarding the 1-to-3-hour duration of spill reduction during transport operations at LMN. The Corps also understands and agrees that pool elevation changes and river flow reductions should be kept to a minimum, to the extent possible during transport operations at LMN as this was the operation coordinated with the TMT and implemented in 2024. Therefore, the Corps will attempt to minimize spill reductions during transport operations and will only reduce spill to levels that are necessary to maintain safe operating conditions for the transport barges. Also, to the extent possible, the Corps will attempt to maintain the LMN and IHR forebays within their appropriate forebay MOP operating range by increasing generation during the spill reductions for transport operations at LMN.

### **Summary of 2025 Spring Transport**

1. Transport will be implemented at Lower Granite, Little Goose, and Lower Monumental dams, as stated in the 2025 Fish Operations Plan
2. Every day transport will continue until May 14, 2025
3. Every other day transport will begin on May 16, 2025
4. Spring transport will end on June 20, 2025

# Measurements

- Smolt-to-Adult Return Rates (SAR)
  - Smolts at collector dam, Adults at Lower Granite (see next slide)
- SAR Ratios
  - Transported vs. Bypassed (T:B)
  - Spilled vs. Bypassed (S:B) (LGR 2020-2022)
  - Transported vs. Spilled (T:S) (LGR 2020-2022)
- Uncertainty: 90% bootstrap confidence intervals

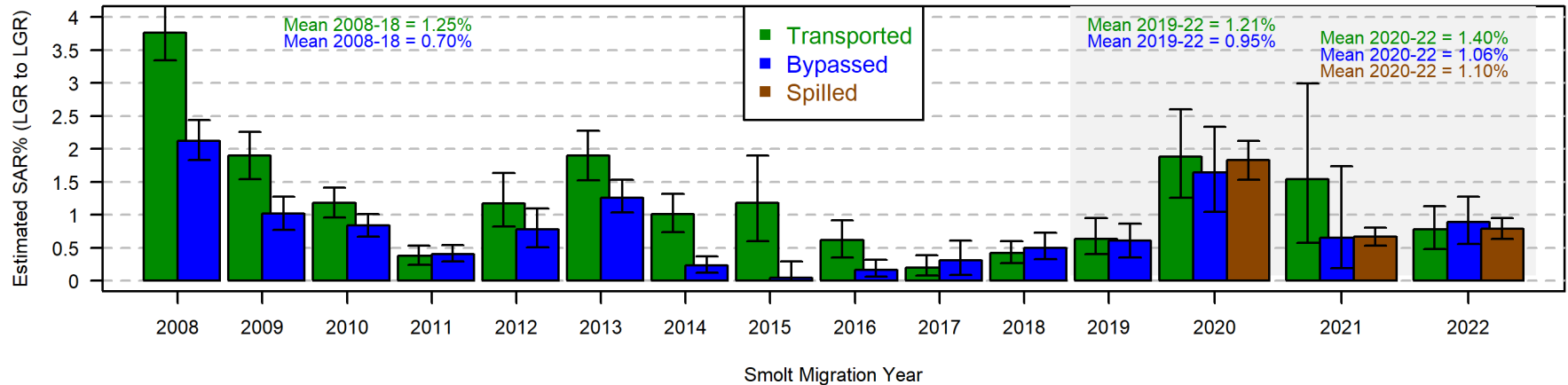
# Smolts and Adults

- “Smolts”
  - All fish detected in specified passage route at a collector dam during the appropriate period of the “smolt migration year”
- “Adults”
  - Count fish detected in adult ladders at Lower Granite Dam in year *after* smolt migration year or later
    - Included:
      - Jacks
    - Excluded:
      - “Mini-Jacks”
      - Adults with detection(s) downstream of LGR but not at LGR

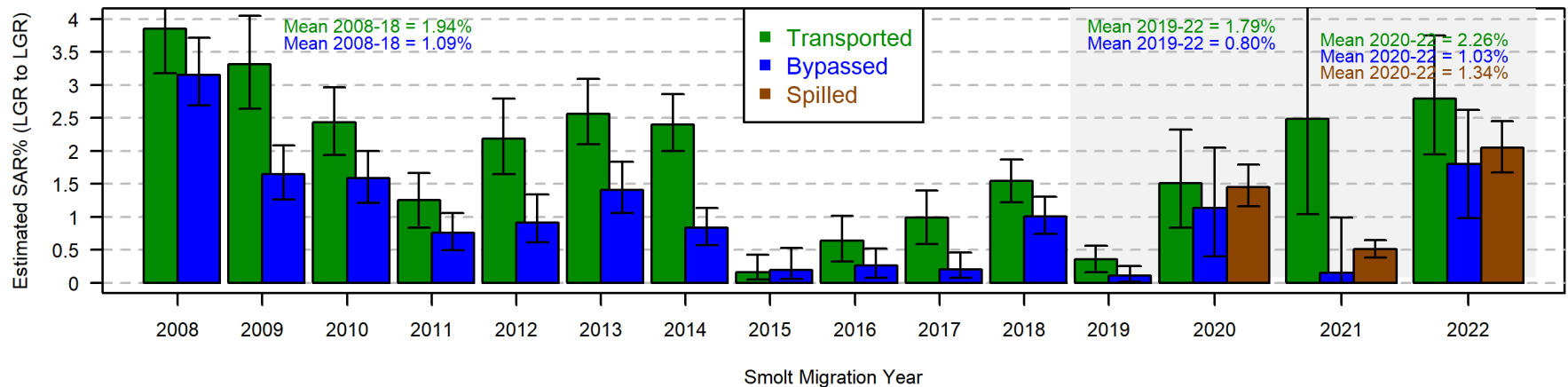
# Lower Granite Smolt to Lower Granite Adult (LGR-to-LGR) Annual SAR%

Based on Fish Tagged Upstream of LGR  
Passing LGR During Period of General Transportation

## Wild Chinook - from LGR



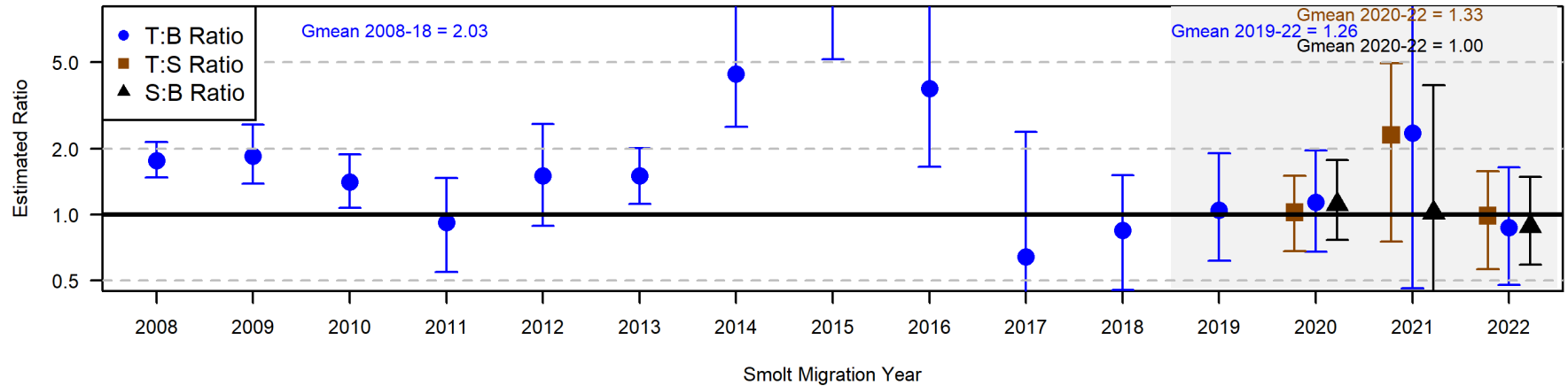
## Wild Steelhead - from LGR



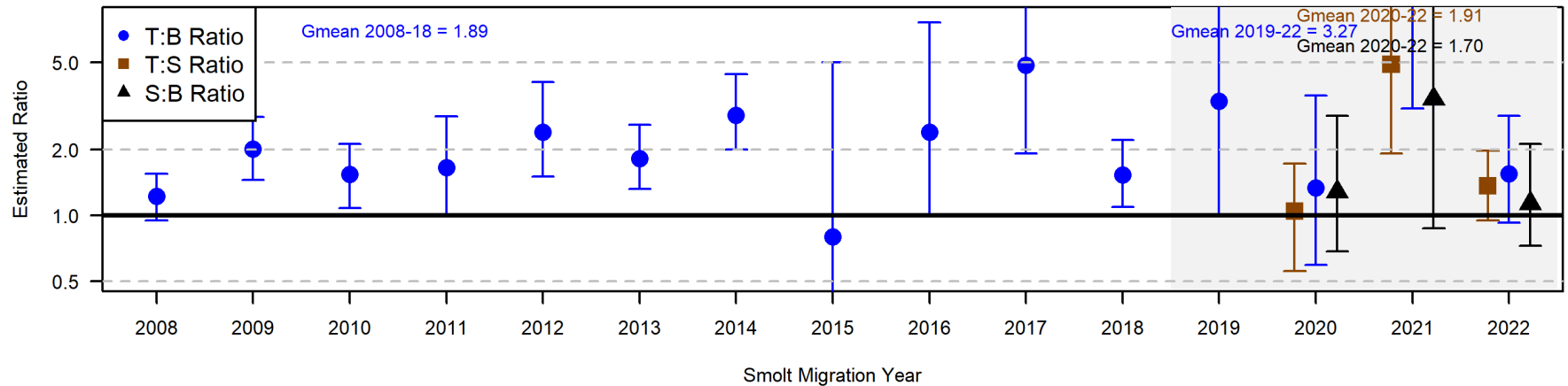
# Lower Granite Smolt to Lower Granite Adult (LGR-to-LGR) Annual SAR Ratios

Based on Fish Tagged Upstream of LGR  
Passing LGR During Period of General Transportation

## Wild Chinook - from LGR



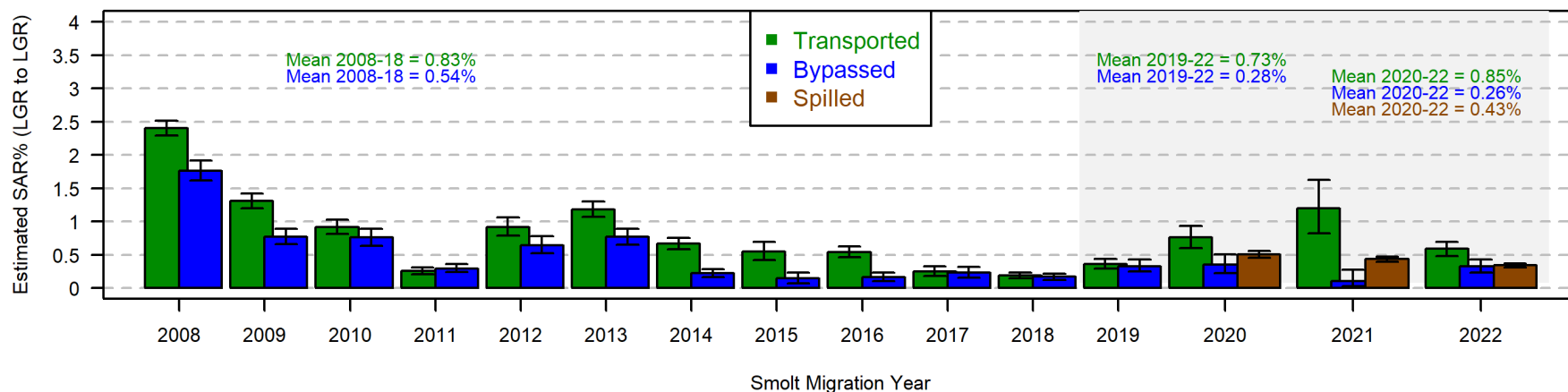
## Wild Steelhead - from LGR



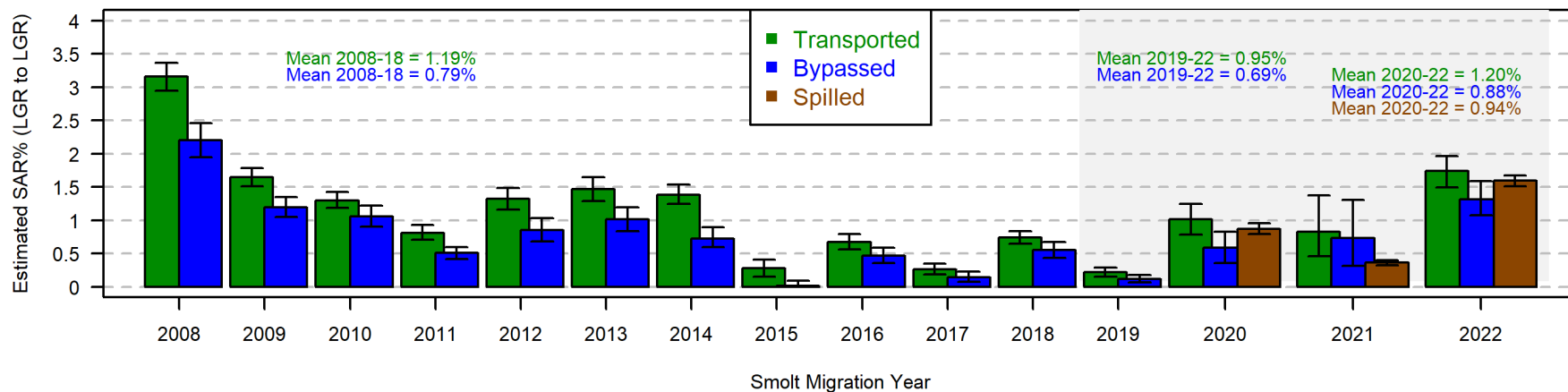
# Lower Granite Smolt to Lower Granite Adult (LGR-to-LGR) Annual SAR%

Based on Fish Tagged Upstream of LGR  
Passing LGR During Period of General Transportation

## Hatchery Chinook - from LGR



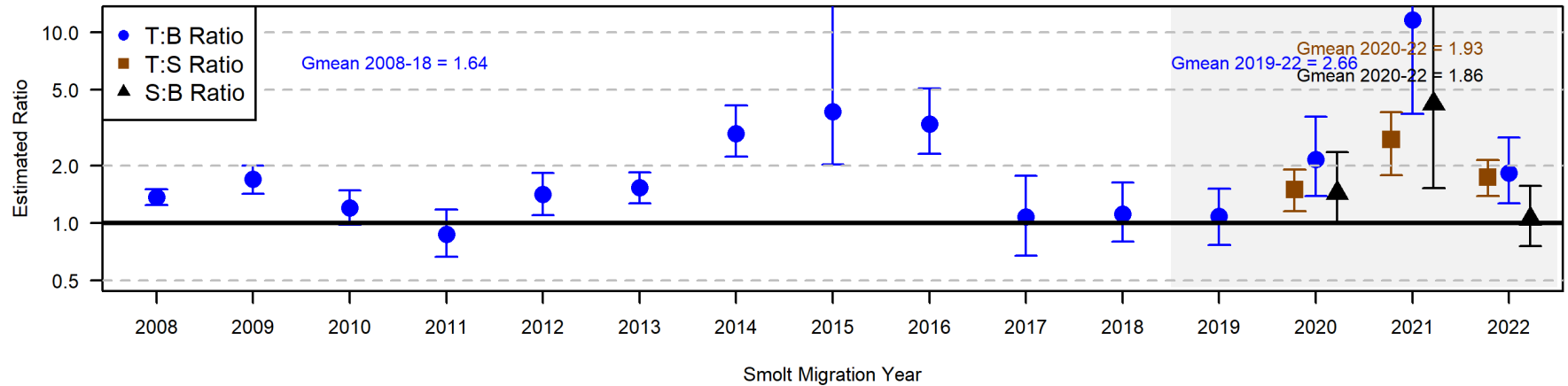
## Hatchery Steelhead - from LGR



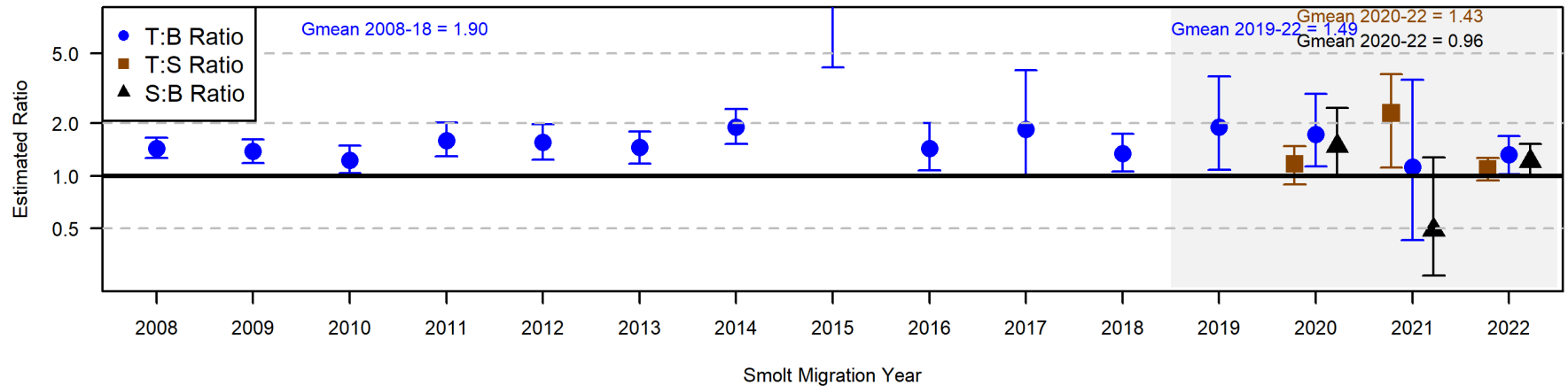
# Lower Granite Smolt to Lower Granite Adult (LGR-to-LGR) Annual SAR Ratios

Based on Fish Tagged Upstream of LGR  
Passing LGR During Period of General Transportation

## Hatchery Chinook - from LGR



## Hatchery Steelhead - from LGR



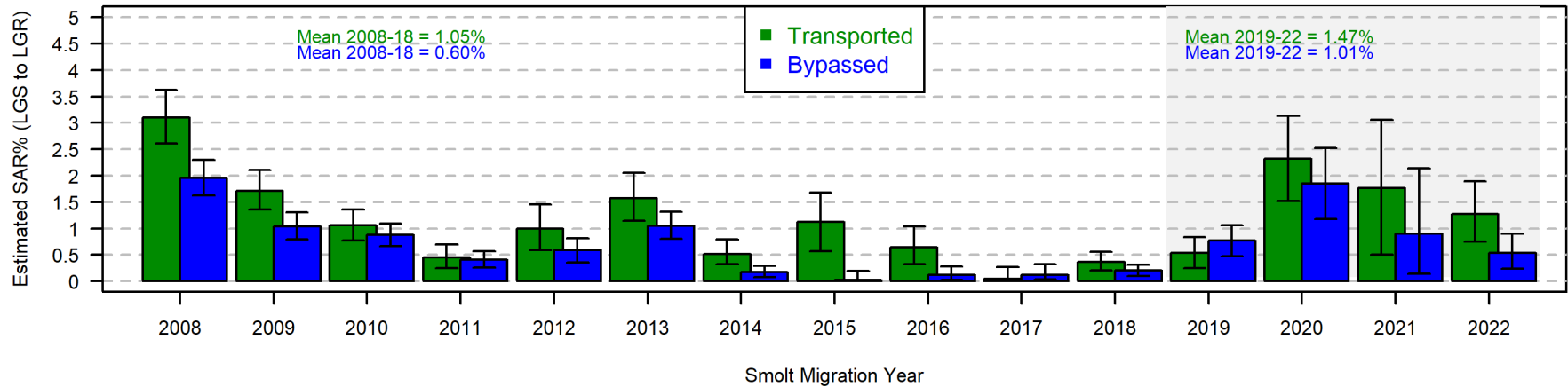


# Little Goose Smolt to Lower Granite Adult (LGS-to-LGR) Annual SAR%

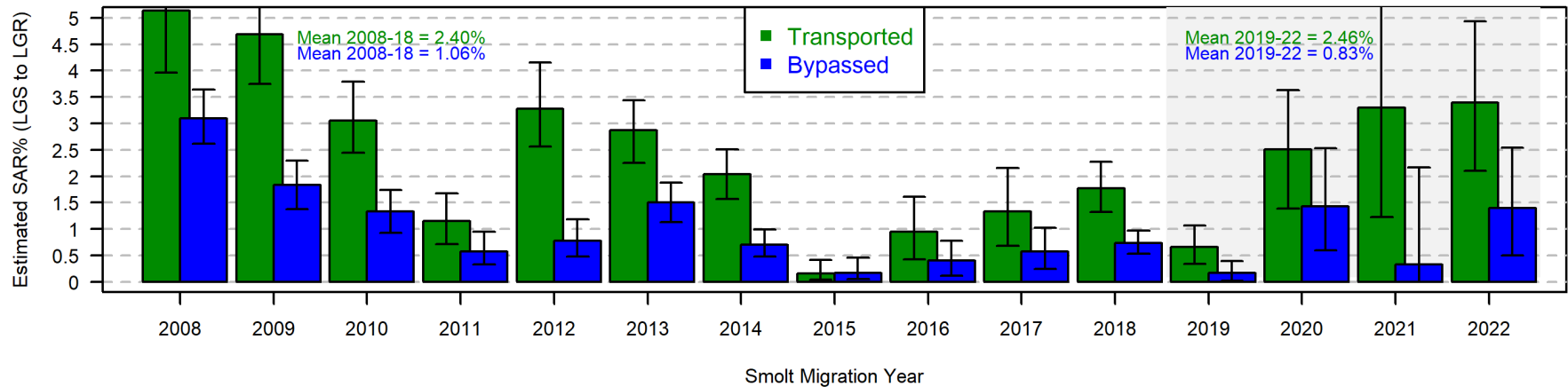
Based on Fish Tagged Upstream of LGR

Passing LGS During Period of General Transportation

## Wild Chinook - from LGS



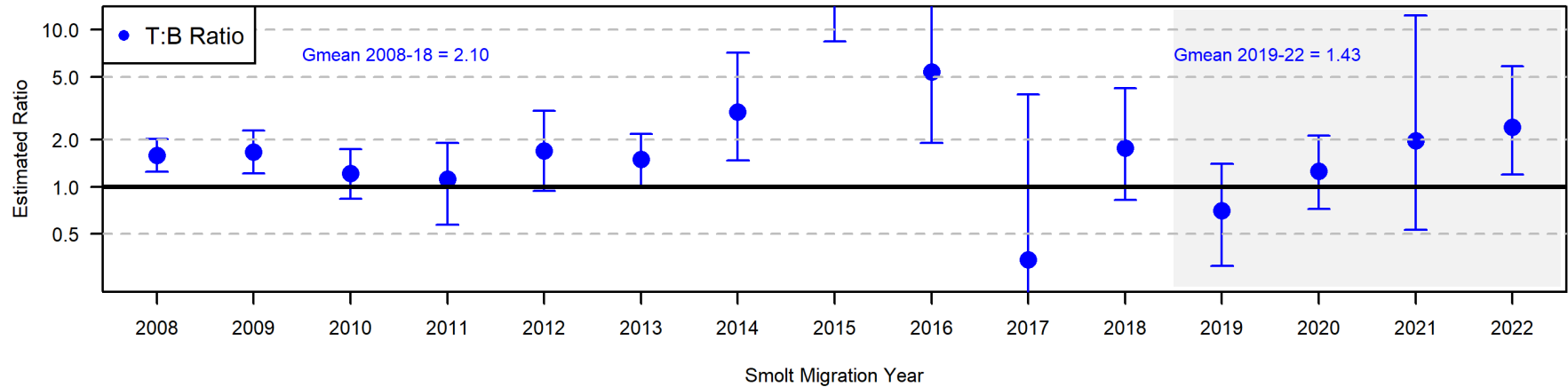
## Wild Steelhead - from LGS



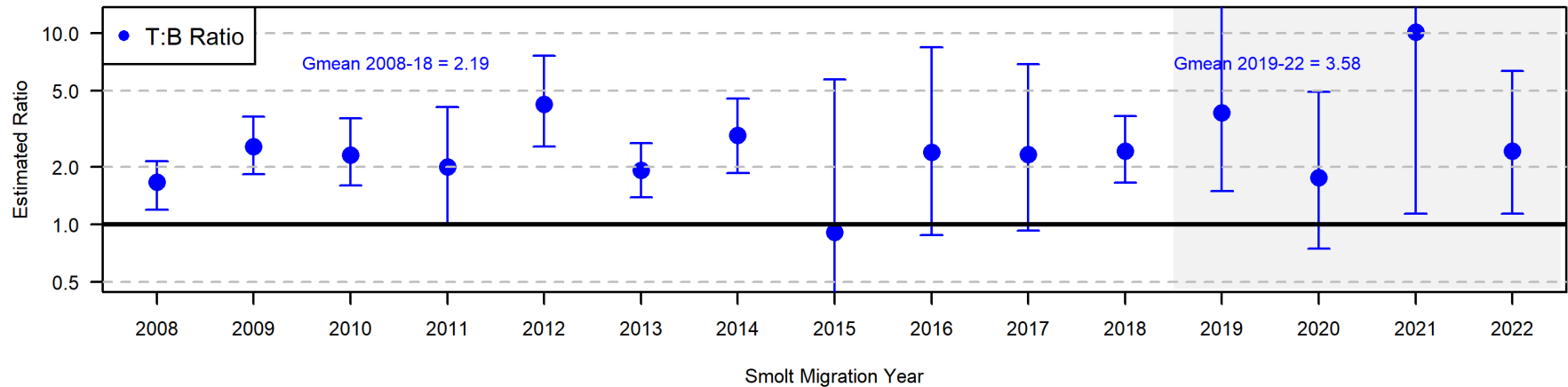
# Little Goose Smolt to Lower Granite Adult (LGR-to-LGR) Annual T:B Ratio

Based on Fish Tagged Upstream of LGR  
Passing LGR During Period of General Transportation

## Wild Chinook - from LGS



## Wild Steelhead - from LGS

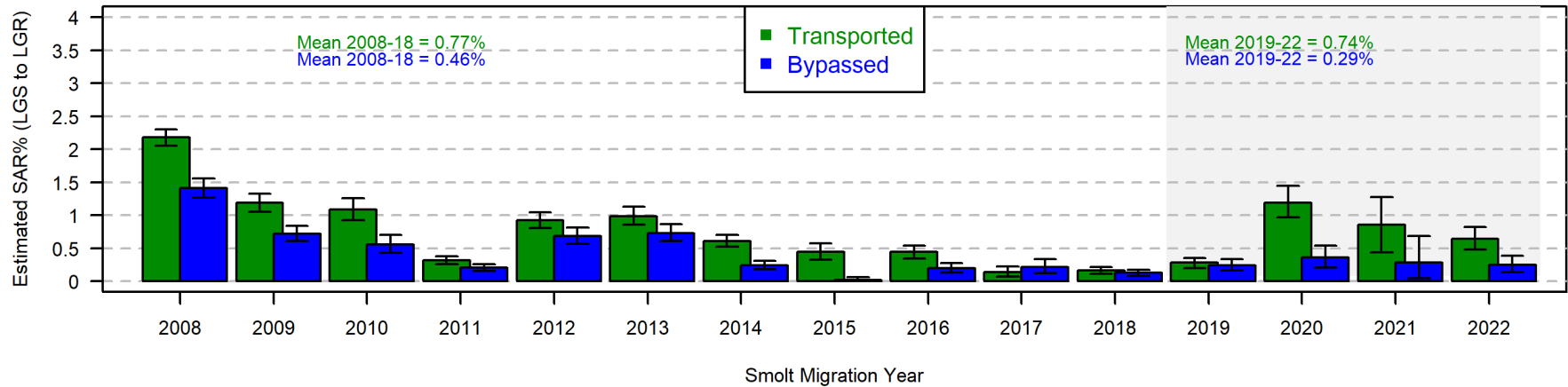


# Little Goose Smolt to Lower Granite Adult (LGS-to-LGR) Annual SAR%

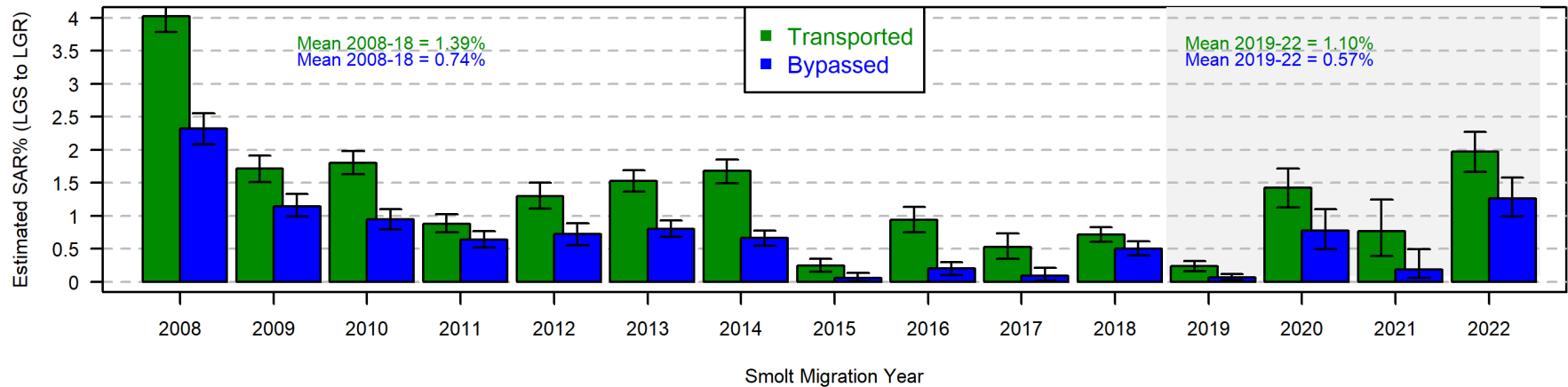
Based on Fish Tagged Upstream of LGR

Passing LGS During Period of General Transportation

## Hatchery Chinook - from LGS



## Hatchery Steelhead - from LGS

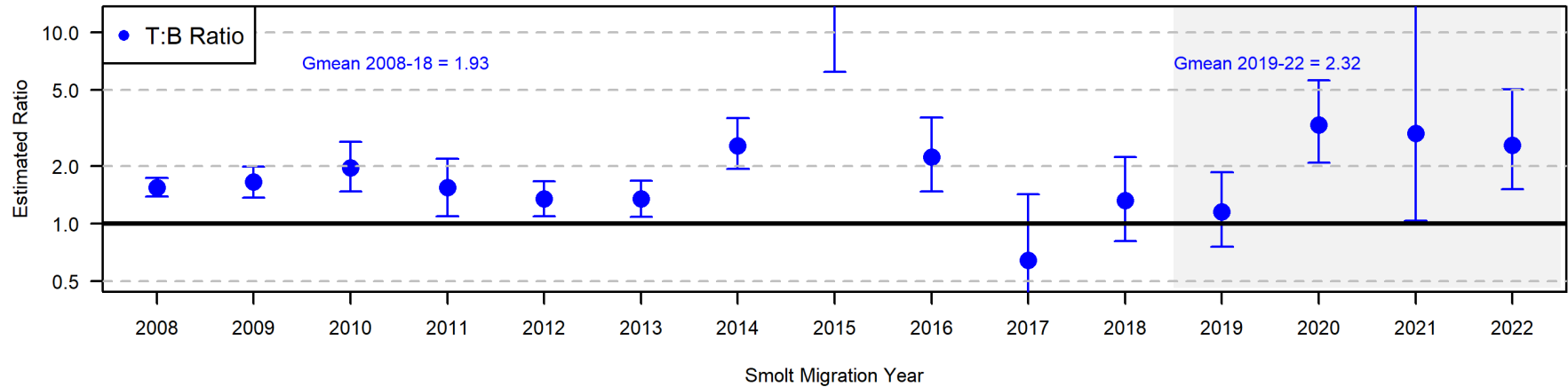


# Little Goose Smolt to Lower Granite Adult (LGR-to-LGR) Annual T:B Ratio

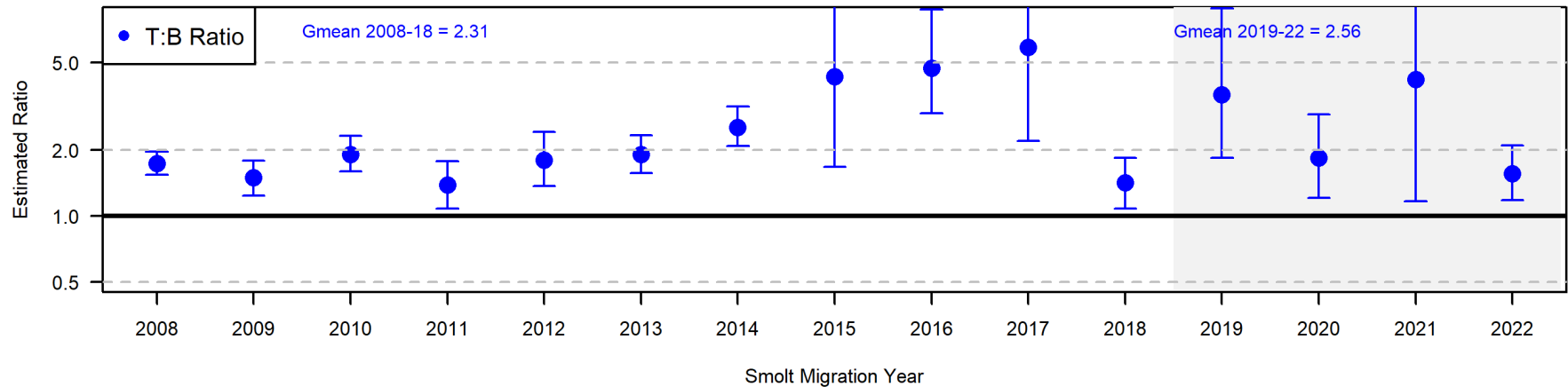
Based on Fish Tagged Upstream of LGR

Passing LGR During Period of General Transportation

## Hatchery Chinook - from LGS



## Hatchery Steelhead - from LGS

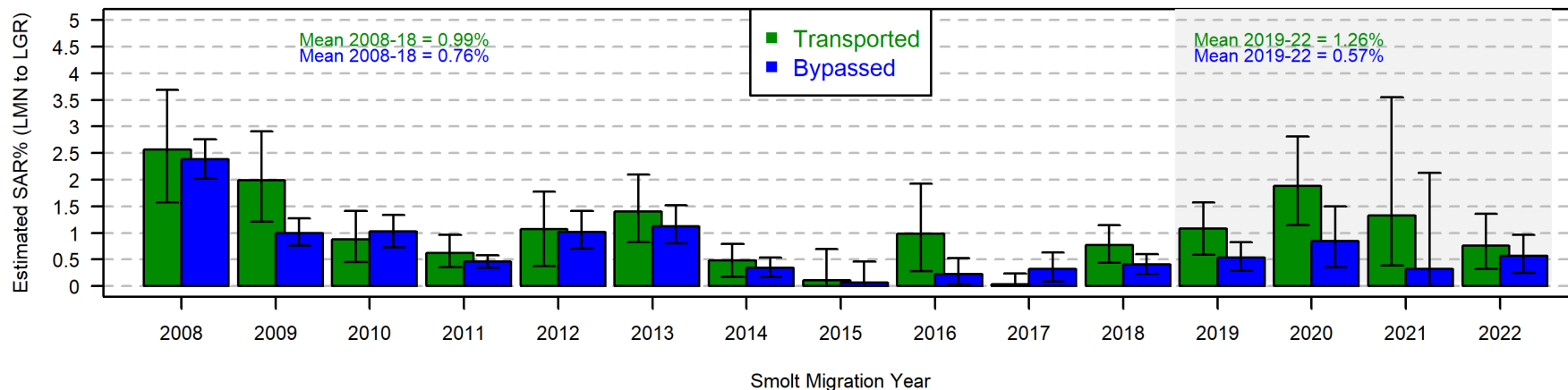


# Lower Monumental Smolt to Lower Granite Adult (LMN-to-LGR) Annual SAR%

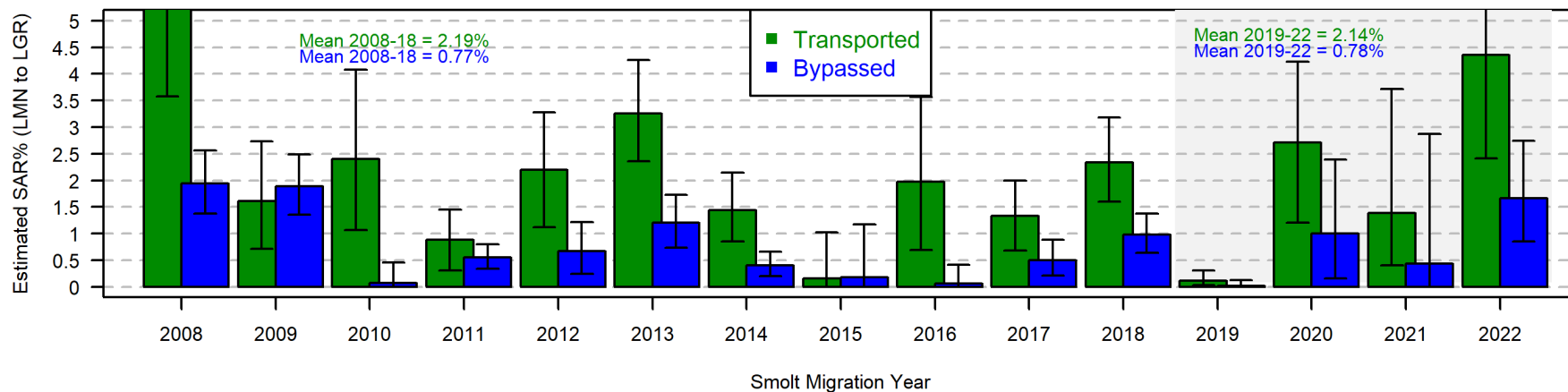
Based on Fish Tagged Upstream of LGR

Passing LMN During Period of General Transportation

## Wild Chinook - from LMN



## Wild Steelhead - from LMN

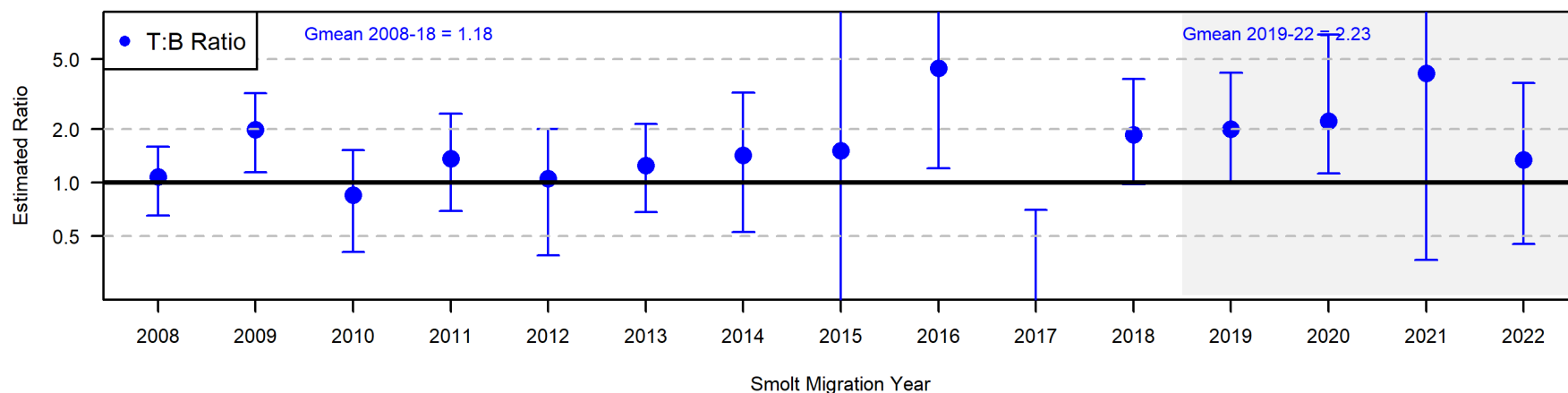


# Lower Monumental Smolt to Lower Granite Adult (LGR-to-LGR) Annual T:B Ratio

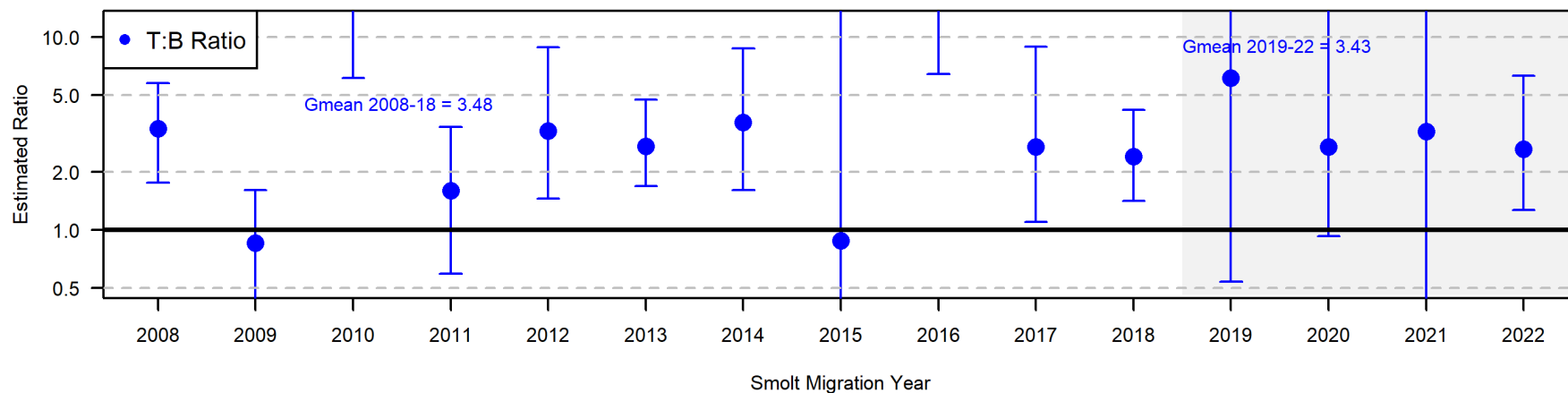
Based on Fish Tagged Upstream of LGR

Passing LGR During Period of General Transportation

## Wild Chinook - from LMN



## Wild Steelhead - from LMN

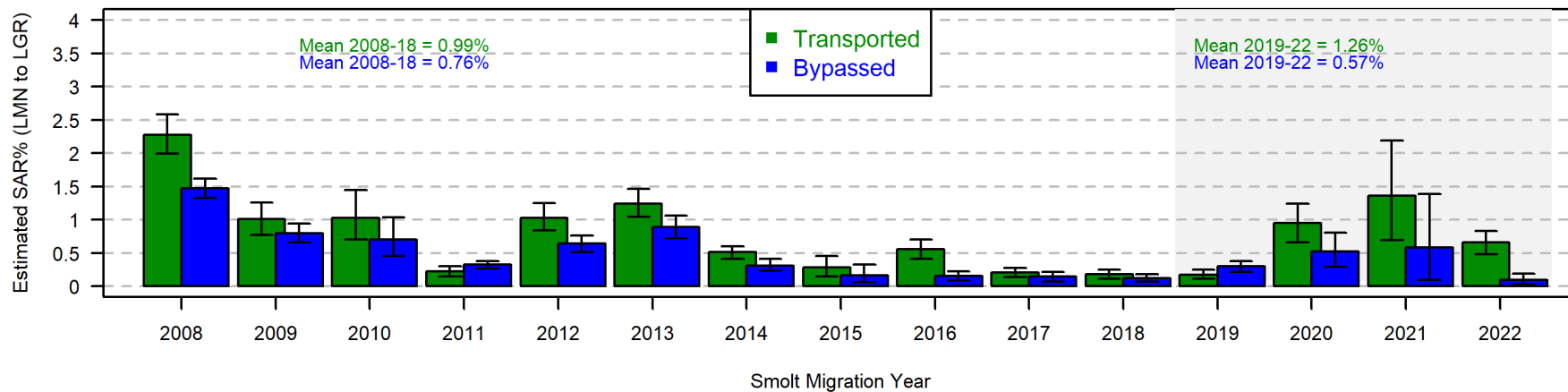


# Lower Monumental Smolt to Lower Granite Adult (LMN-to-LGR) Annual SAR%

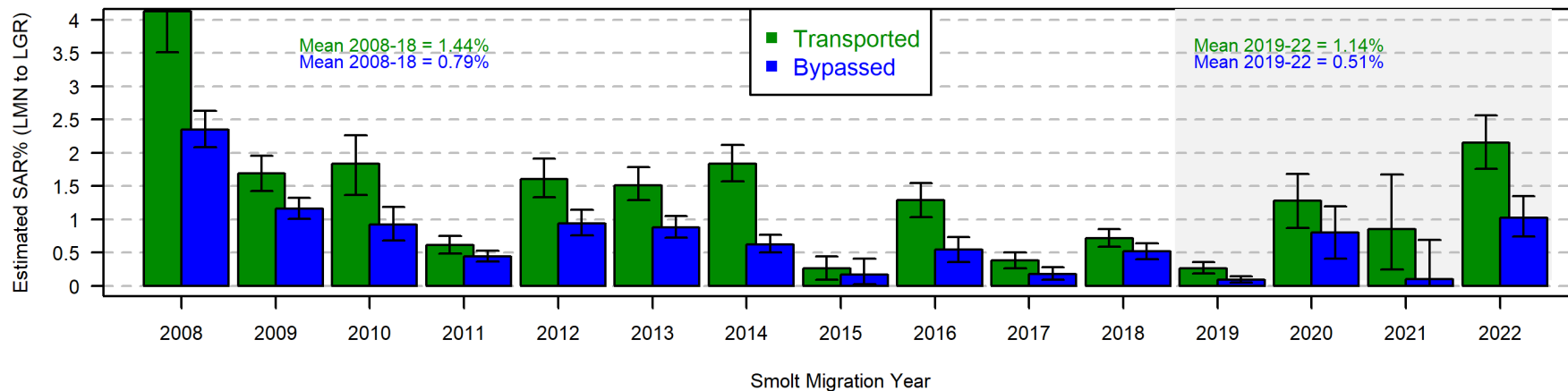
Based on Fish Tagged Upstream of LGR

Passing LMN During Period of General Transportation

## Hatchery Chinook - from LMN



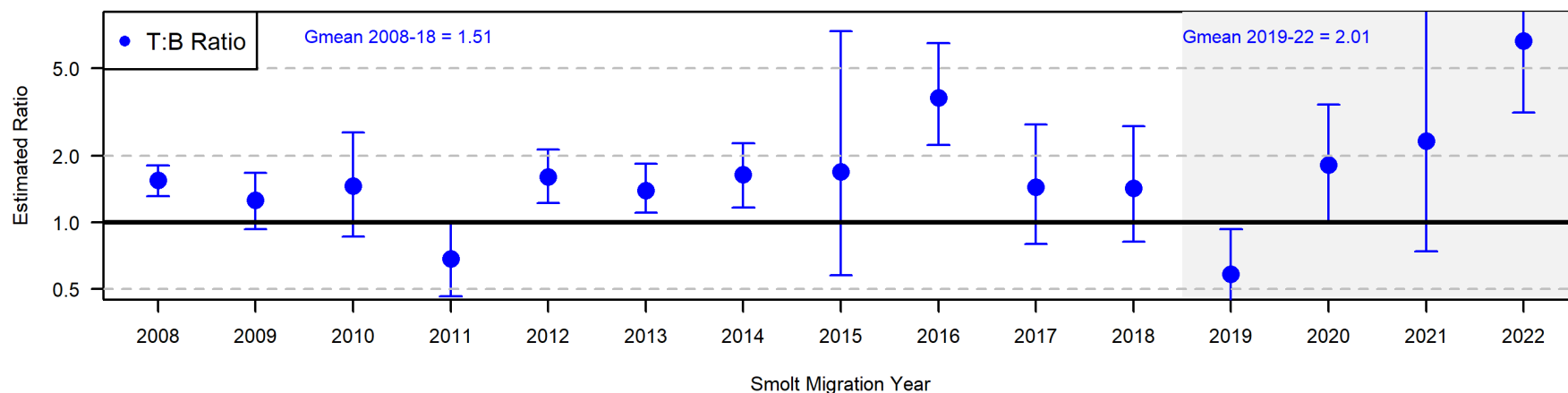
## Hatchery Steelhead - from LMN



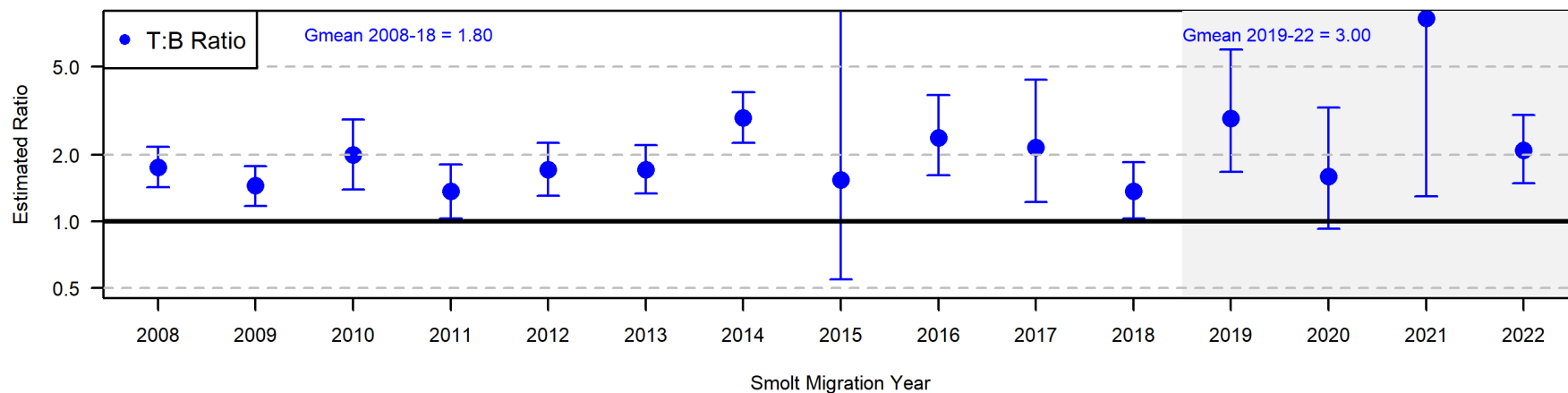
# Lower Monumental Smolt to Lower Granite Adult (LGR-to-LGR) Annual T:B Ratio

Based on Fish Tagged Upstream of LGR  
Passing LGR During Period of General Transportation

## Hatchery Chinook - from LMN



## Hatchery Steelhead - from LMN





# Annual Estimated SARs – May 15-June 15

## Subyearling Fall Chinook

