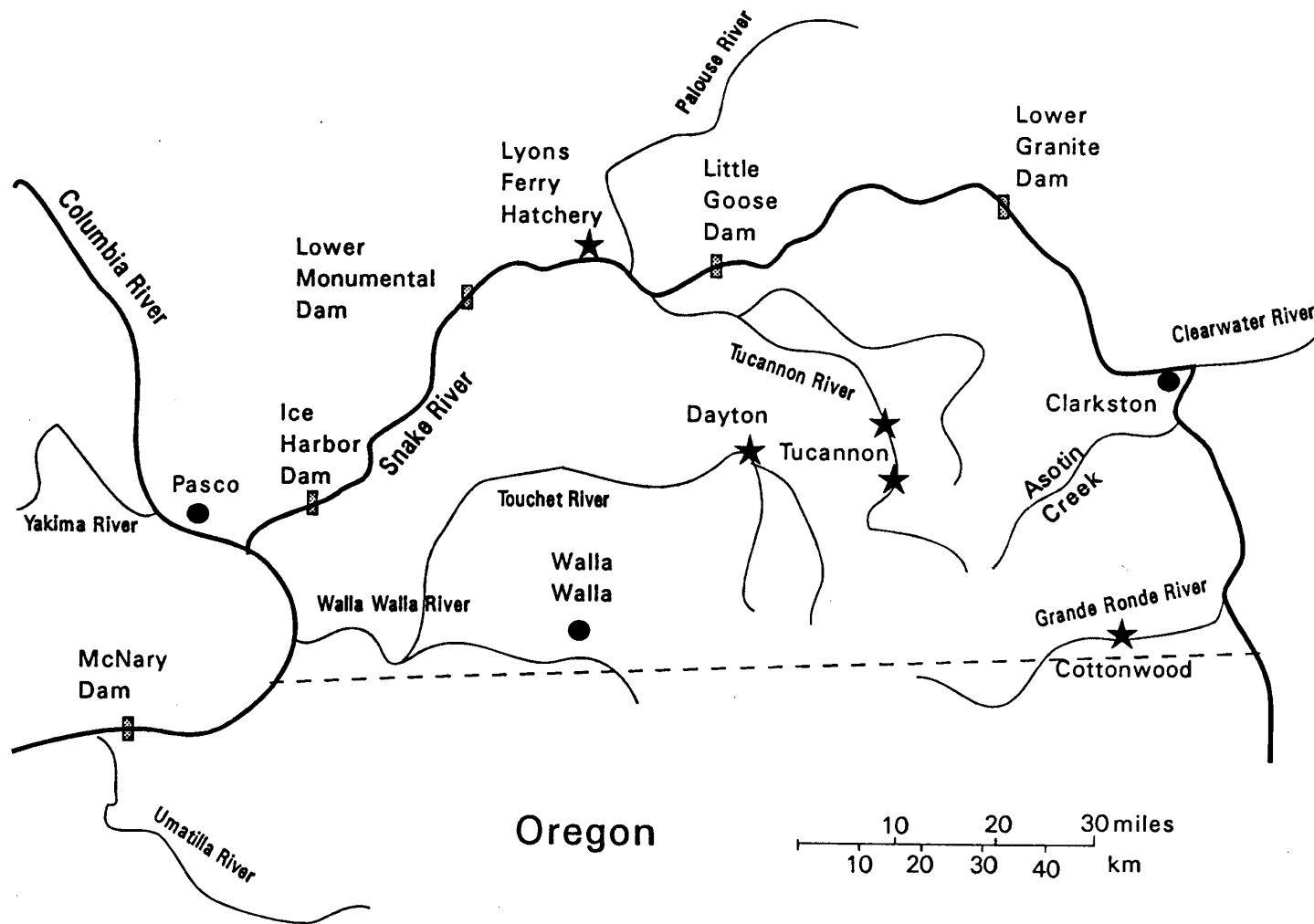


Evaluate Bull Trout Movements in the Tucannon & Lower Snake Rivers



- Mike Faler - USFWS, Ahsahka, ID
- Glen Mendel - WDFW, Dayton, WA



Background

- Occurrence of bull trout at the Snake River dams is only incidentally known
- Status of the Tucannon River population is considered healthy
- It's unknown if the hydropower system limits Tucannon River bull trout in completion of their migratory behavior

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Limiting Factors identified in the Subbasin Summaries

- Data gaps
 - Out-of-basin effects
migration corridor survival
 - Fish passage
 - Entrainment/Fall Back
 - timing of bull trout usage & extent

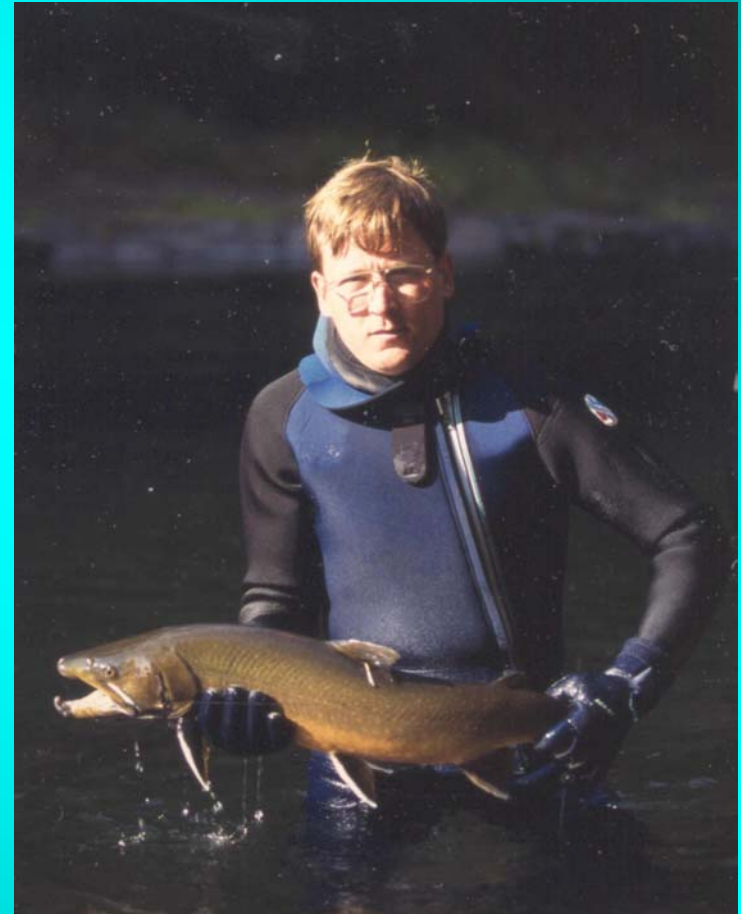
Identified Needs

(Mainstem Snake Subbasin)

- Determine passage requirements of bull trout at Lower Snake River dams
- Determine presence and use of bull trout in the mainstem Snake River
 - distribution, timing, & usage at the dams and reservoirs

Identified Needs (Tucannon Subbasin)

- Full assessment of distribution, habitat use, life history...
- Expand monitoring and assessments to enhance understanding of bull trout...



Objectives

- Determine the spatial distribution, migration timing, and movements....
- Determine bull trout use and passage efficiency in fishways....
- Estimate frequency of bull trout fall back....
- Determine if bull trout losses result from FCRPS operation....

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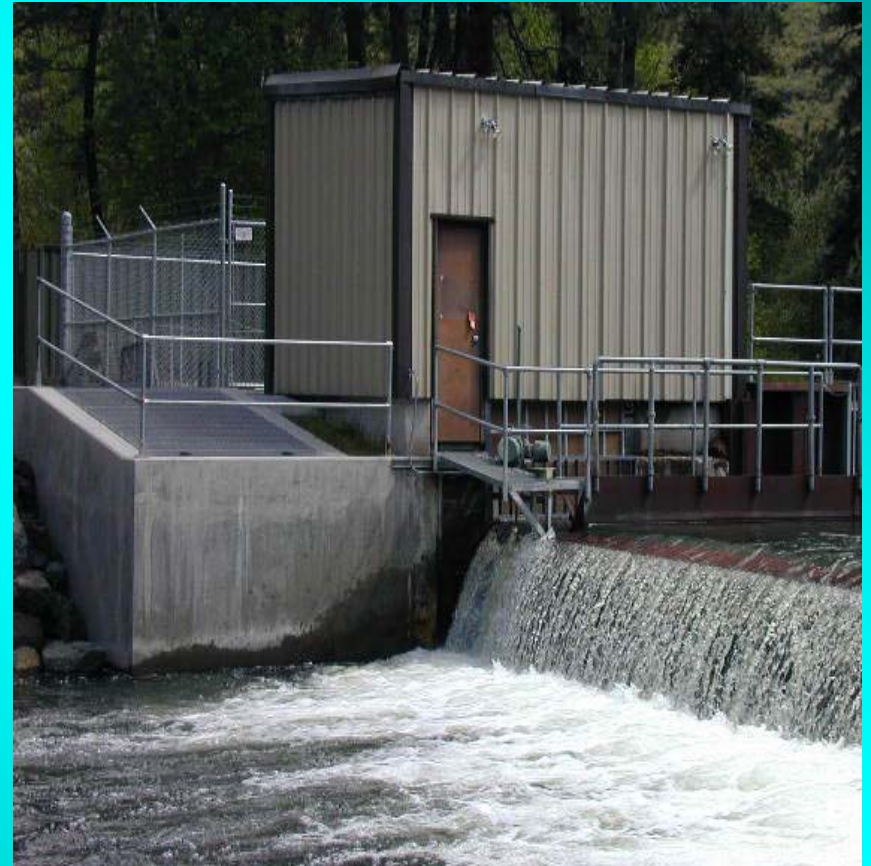
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Methods

- Collect bull trout each spring at the Tucannon Hatchery Weir



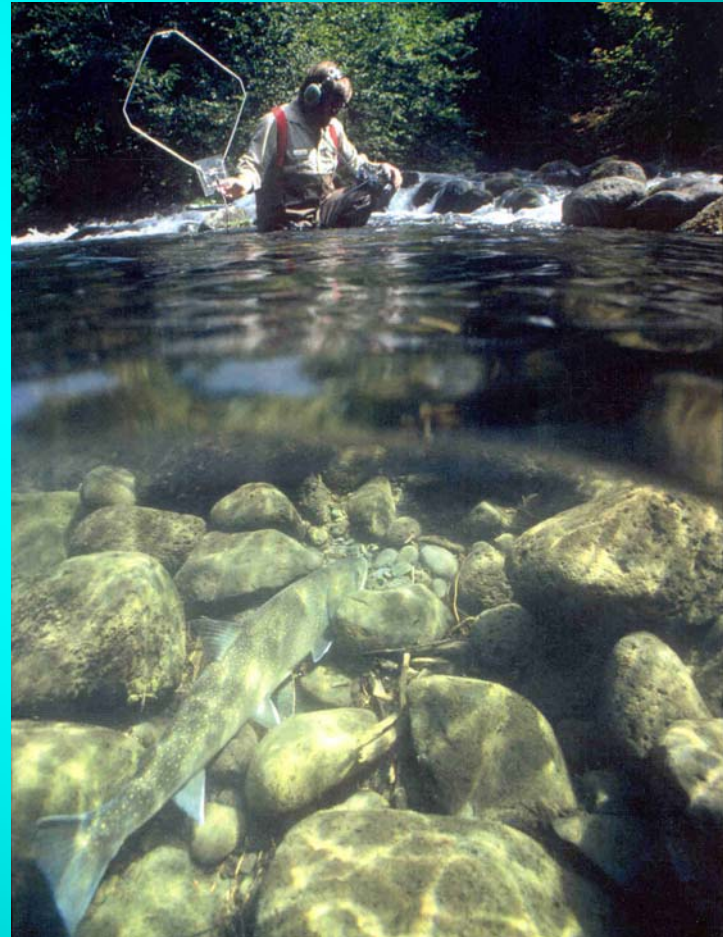
Methods

- Surgically implant 1 or 2 year radio tags in 15-40 bull trout at the Tucannon Hatchery



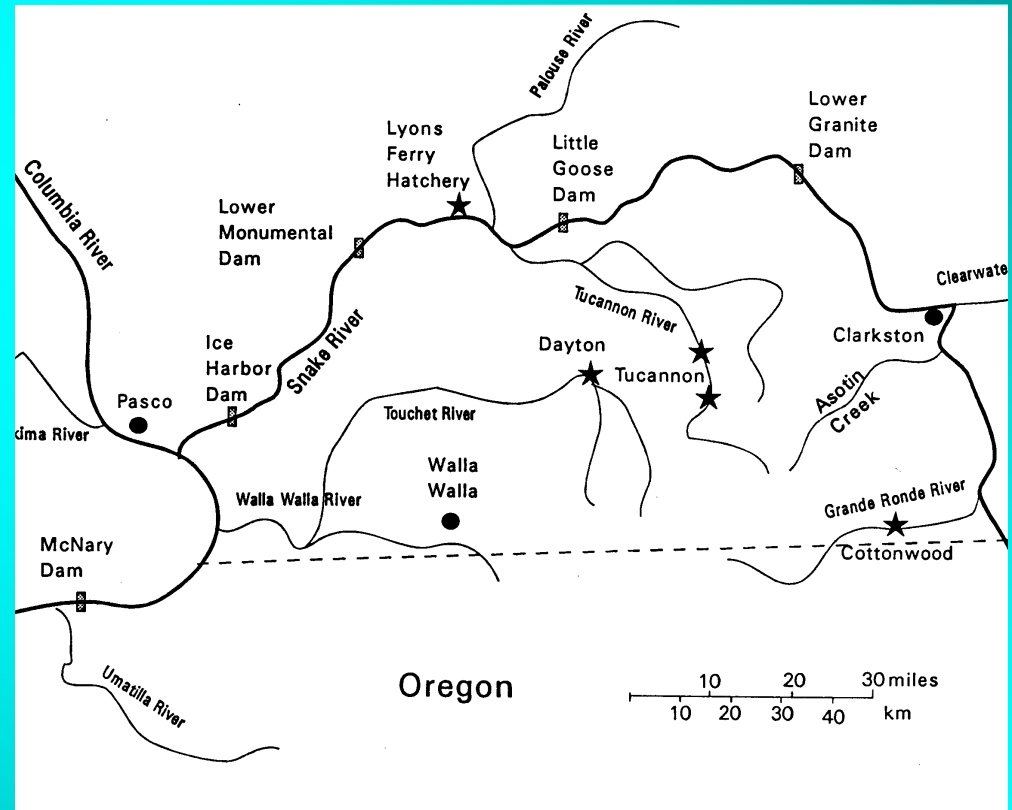
Methods

- Monitor movements with mobile receivers



Methods

- Track using fixed receivers, winter-spring, 2002-2005



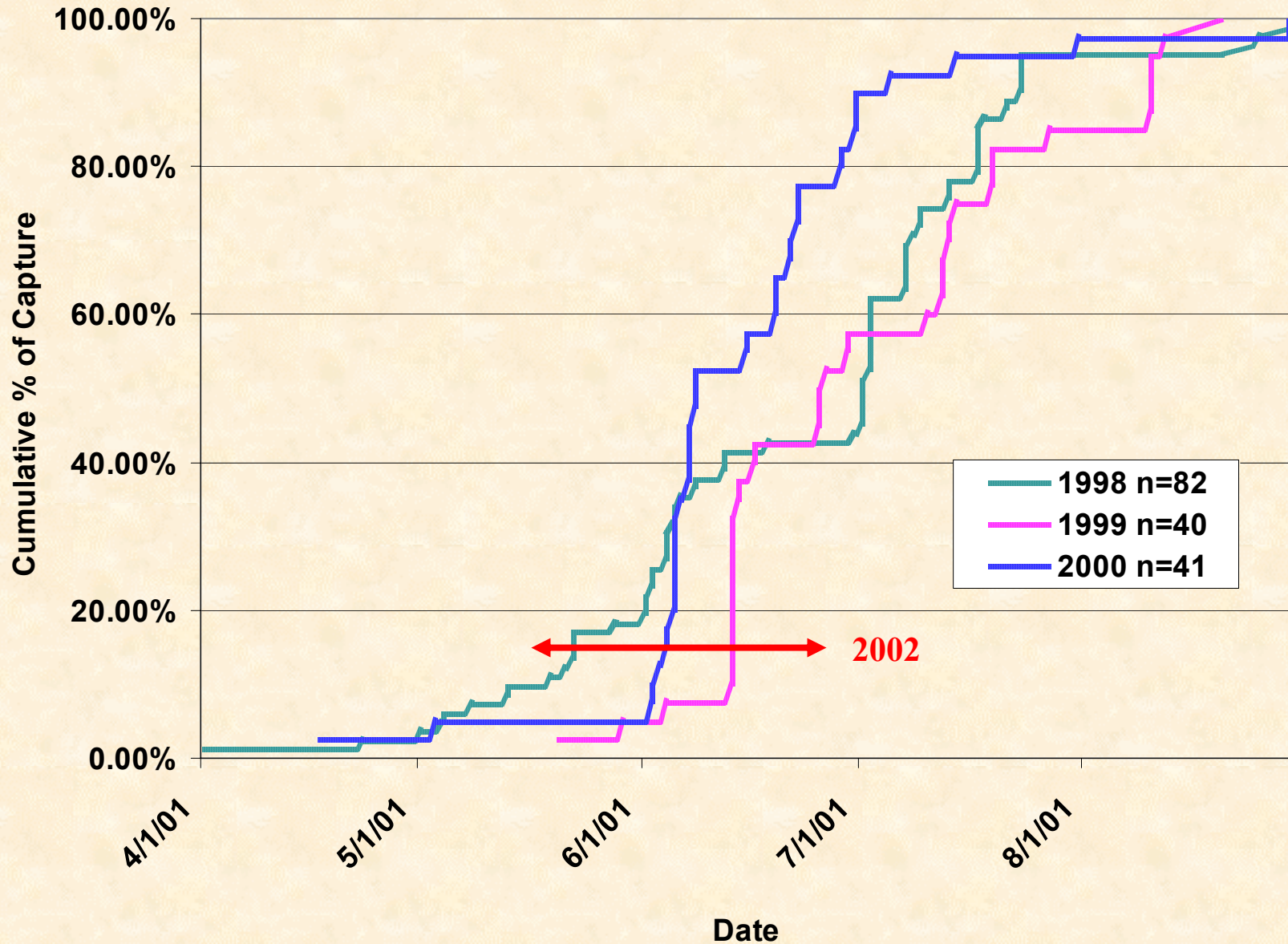
Analysis

- Delineate distribution and migration timing
- Calculated passage rates
- Determine occurrence & frequency of fall back
- Determine % return back to the Tucannon River
- Determination of loss

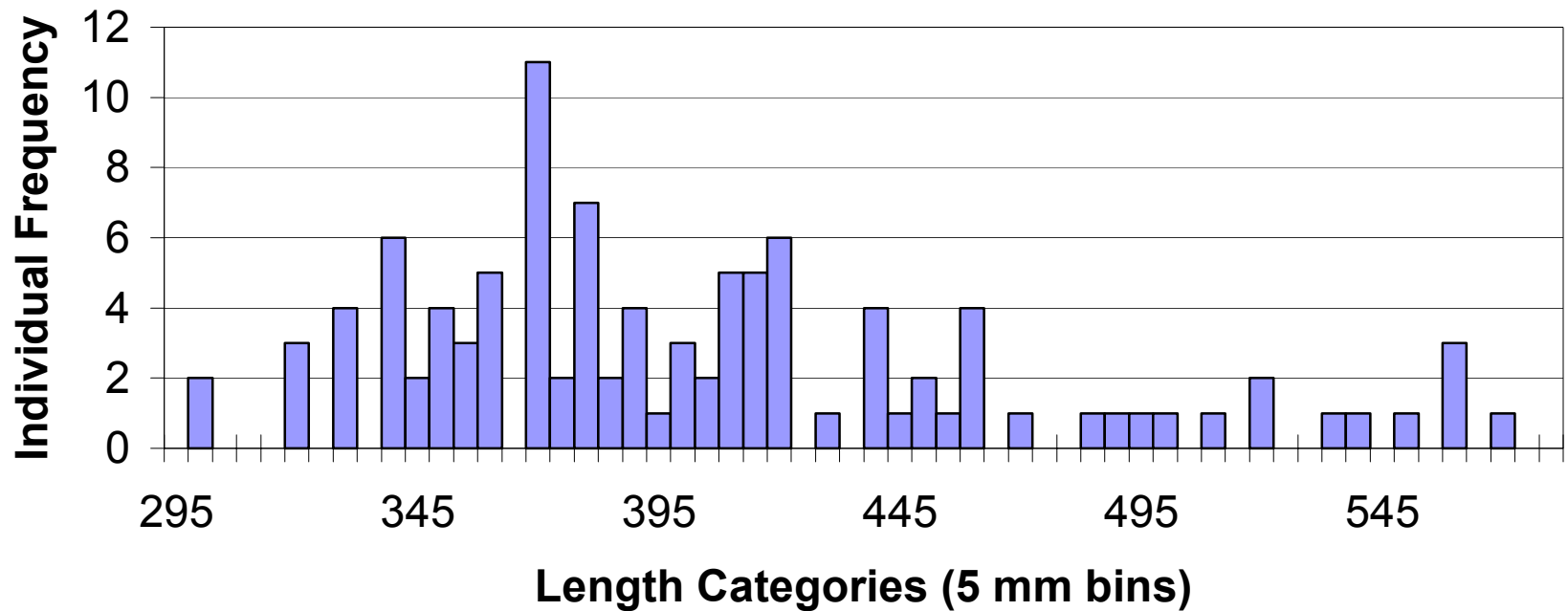
Tucannon Hatchery Bull Trout Trapping Data 1998-2002

| Year | Total # BT | Capture Dates | Ave. Length |
|------|---------------|------------------|----------------|
| 1998 | 82 | 4/1 - 8/29 | 396 mm |
| 1999 | 40 | 5/20 - 7/12 | 449 mm |
| 2000 | 41 | 4/17 - 8/29 | 437 mm |
| 2002 | 134 | 5/17- 6/26 | 404 mm |

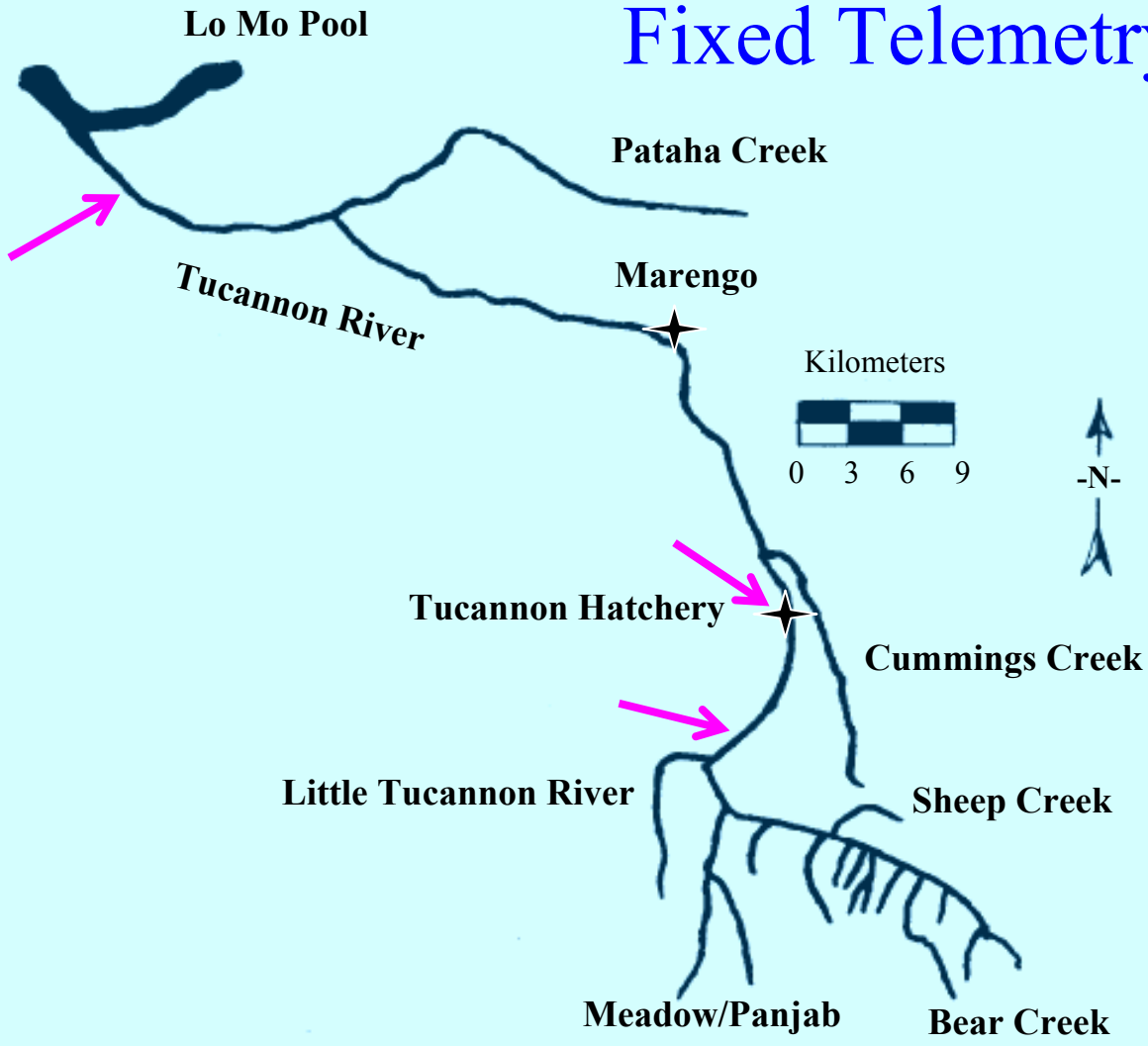
Cumulative Capture at Tucannon Hatchery Weir



Length Frequency of Bull Trout Captured at WDFW Tucannon Hatchery, 2002 (n=105)



Fixed Telemetry Sites



Spawning Distribution



Current Distribution



Report Card



Known distribution of migratory bull trout in the Tucannon River



Report Card

- I Known distribution of bull trout in the Mainstem Snake River



Report Card

I Identified limiting factors in the FCRPS



