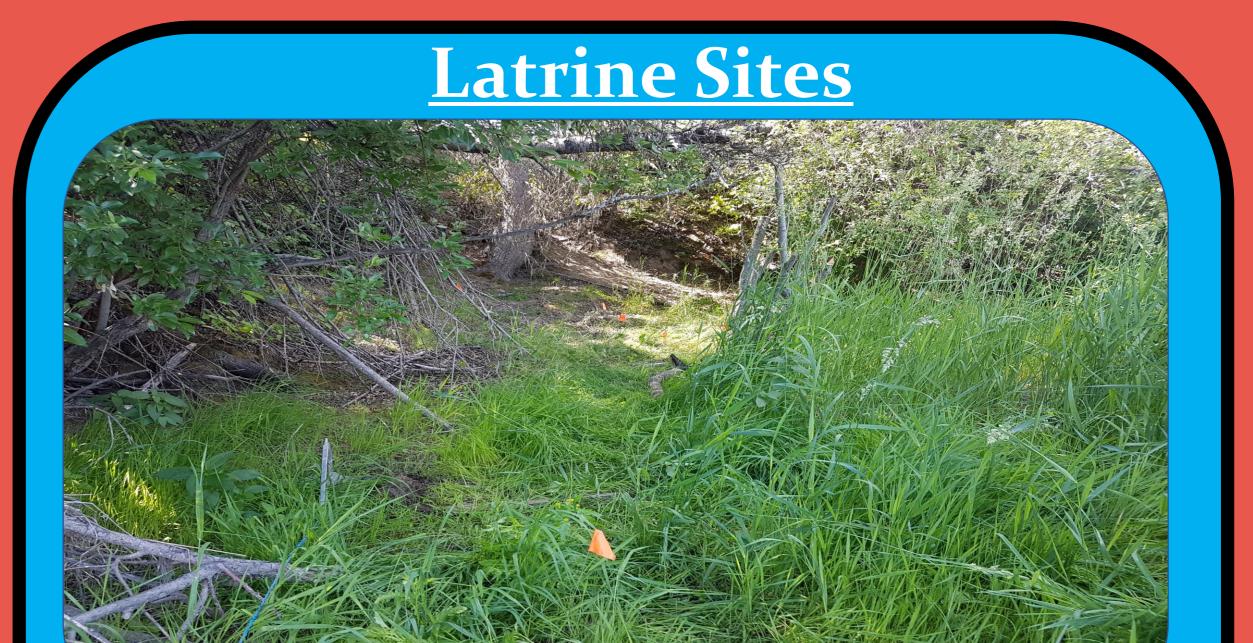
River Otter Predation of Juvenile Nechako White Sturgeon



<u>The Predator – North American River Otter (Lontra canadensis)</u>

Adult River Otters weigh 5 – 14 kg and can eat up to 20% of their body weight every day. They primarily eat fish and the Nechako River is home to an abundance of fish of different species, making it an ideal hunting ground.

River Otters are opportunistic feeders, meaning they will eat whatever suitable prey is available, even if it isn't a part of



their normal diet. Therefore, it is possible that they take advantage of hatchery-released juvenile Nechako White Sturgeon as a food source.

River Otters have particular terrestrial locations called latrine sites that they use for defecation and urination. **River Otters are social animals and latrine sites offer a** location to interact with other otters, both physically and through scent-based communication.

How do Researchers Know River Otters Eat <u>Juvenile Nechako White Sturgeon?</u>



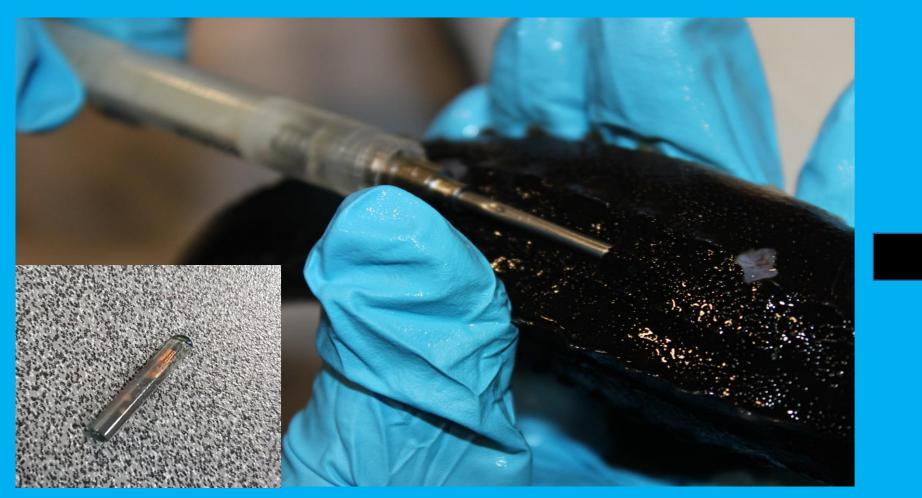


Steps to Collecting Data About Predation



1. Identification of latrine sites from boat or by foot

Some juvenile sturgeon released from the NWSCC every year are implanted with a radio tag



All juvenile sturgeon released from the NWSCC are implanted with a PIT tag

Radio tags found on shore, often in areas with suspected otter activity



River otters ingest PIT tags when eating sturgeon, tags are defecated in otter latrine sites

2. Scan site, detect PIT tags with scanner, and mark locations



3. Retrieve PIT tags and collect otter scat for diet analysis

| PIT Tag Field Report | | | | | | 0A181C2170 | | | | | | Telemetry Report | | | | | oort | | | | Current display: NEW rKn Press to display OLD rKn | | |
|----------------------|--------------|-----|------|------|-------|------------|---------------|------------------------------|-----|-----|------------|------------------|--|-------------|---------------|-------------|---------|----------|---------------------|--------------|--|------------------|------|
| Agency | _ | Sex | | n | | Ta Age | gs at Release | Scute Marks at Release | OTC | DNA | Fin Ray | RT Freq | | Code Set | Tag Status | Ac. Code | Fate | Comments | Surgery Comments | Release Date | e River | Release rKm | |
| CSTC | Hatche ry | 98 | 43.5 | 50.9 | 0.469 | | Pit | L2 L8 | | No | No | | | | | | | Released | | | 2018-09-13 | NECHAKO RIVER | 115. |
| CSTC | Hatche ry | 98 | 40.7 | 48.1 | 0.375 | | Pit | L2 L8 | | No | No | | | | | | | Released | | | 2017-09-08 | NECHAKO RIVER | 110. |
| FFSBC | Hatchen | y | 36.8 | | 0.371 | | Pit | L2 L8 | | | | | | | | | Release | d JR1-9 | | 2016- | 04-06 NECH RIV | | 5 |

4. Retrieve PIT tag information from database for analysis

What do Researchers Want to Learn **About this Predation?**

- How much predation is happening?

<u>What have Researchers Found so Far (2019)?</u>



• **524** PIT tags from **27** identified latrine sites.

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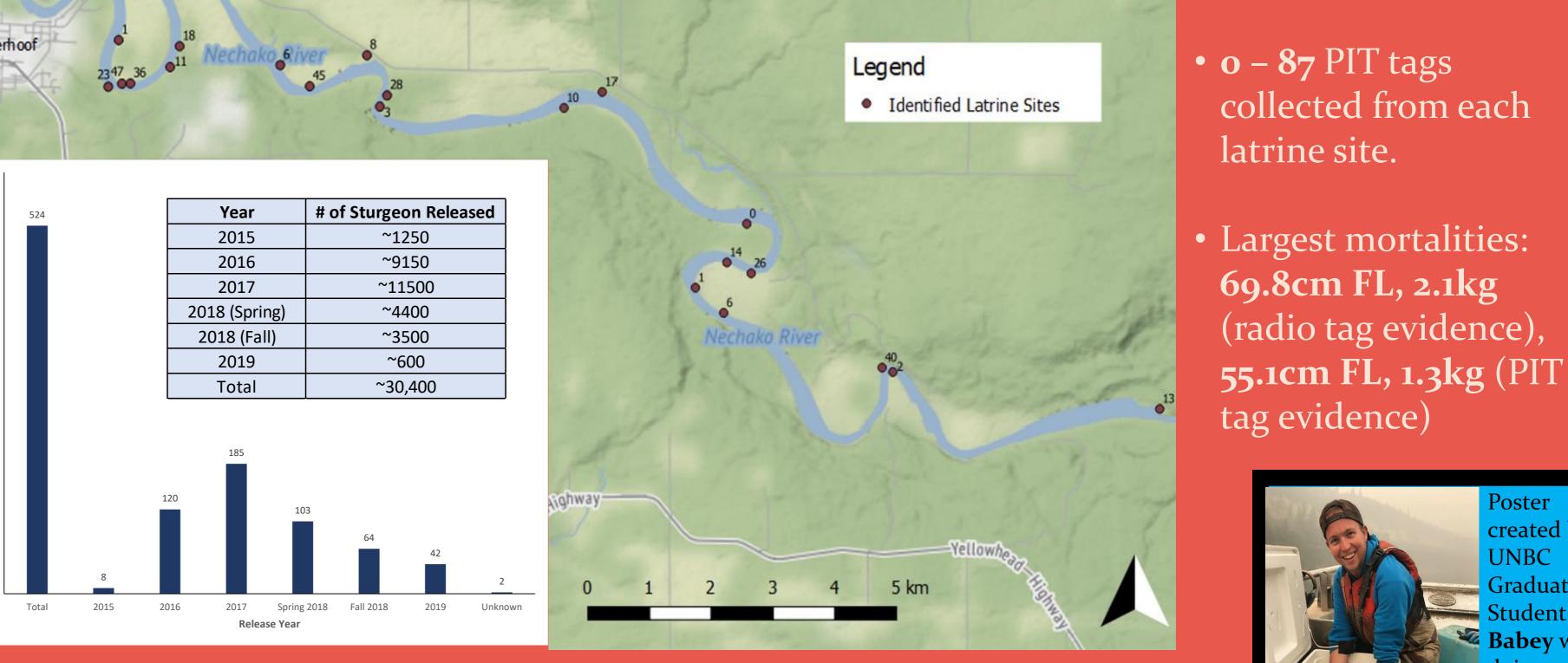
his predator-

5. Revisit sites

- Where is predation happening and are there locations with higher predation than others?
- When is predation happening and are there times of the year when juvenile sturgeon are more vulnerable to predation?
- What are the spatial and temporal factors contributing to this predation?
- What size of sturgeon are otters eating and is there a size where they are no longer vulnerable to predation?



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Map showing most identified latrine sites on the Nechako River to date and respective number of PIT tags found at each. Inserted graph indicates number of PIT tags collected based on what year the fish was released.