#### Lake Roosevelt Northern Pike Update

Suppression and Research







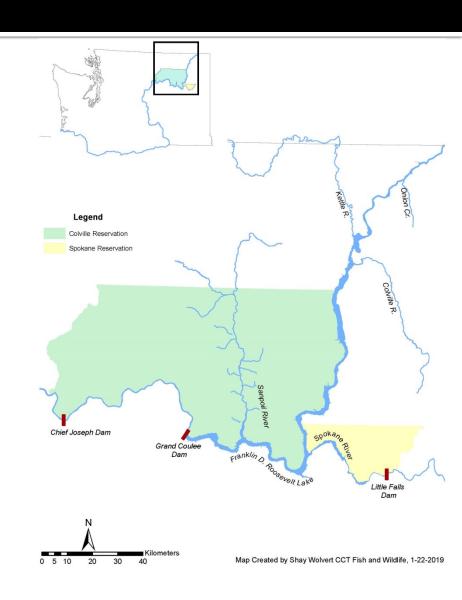


Confederated Tribes of the Colville Reservation: Holly McLellan and Shay Wolvert Spokane Tribe of Indians: Alix Blake and Justin Seibert Washington Department of Fish and Wildlife: Charles Lee and Tyler Parsons

#### Lake Roosevelt

- 240 km long reservoir
- Annual spring drawdown 6-15 m
- Fishery co-managed by Colville Tribe, Spokane Tribe and WDFW
- Sanpoil, Spokane, Kettle rivers all major tributaries





#### Northern Pike Suppression Work Plan

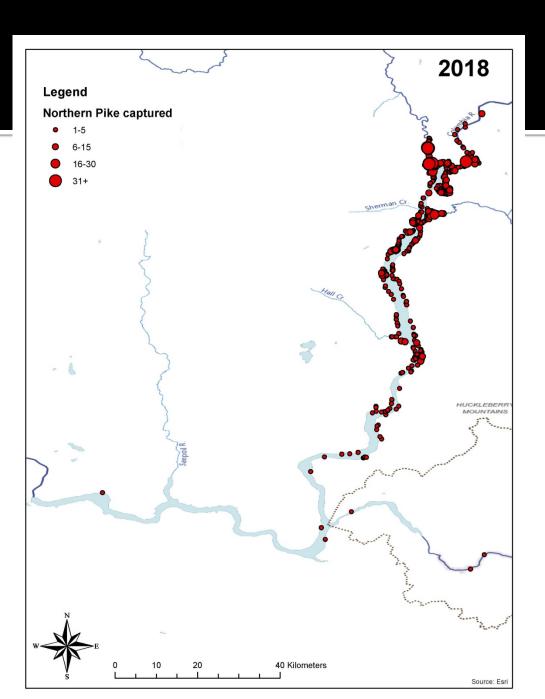
#### Pilot work began in 2015, full plan in 2017

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Suppression												
Gillnetting (CCT/STI)		Χ	Χ	Х	Х	Χ	Χ	Х	Х	Χ		
Electrofishing (CCT/STI)								Х	Х	Χ		
Fyke/Seine Netting (CCT/STI)						Χ	Χ					
Reward Program (CCT)	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	Χ	Χ	Χ	Х
*Setlines (experiment) -2019							Χ	Х				
* All Hands On Deck Effort -2019					Χ							
Research/ Monitoring												
Monitoring survey (WDFW)			Χ							Χ		
Microchemistry (CCT)									Χ	Χ	X	Χ
*Larval Light Traps (CCT) -2019												
eDNA Study (CCT)					Χ				Χ			
Harvest via Creel (STI)	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	Х	Χ	Χ	Χ
Public Outreach (ALL)	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	X	Χ
Preventative Measures												
*Aquatic invasive plant removal -									Χ			
2018												

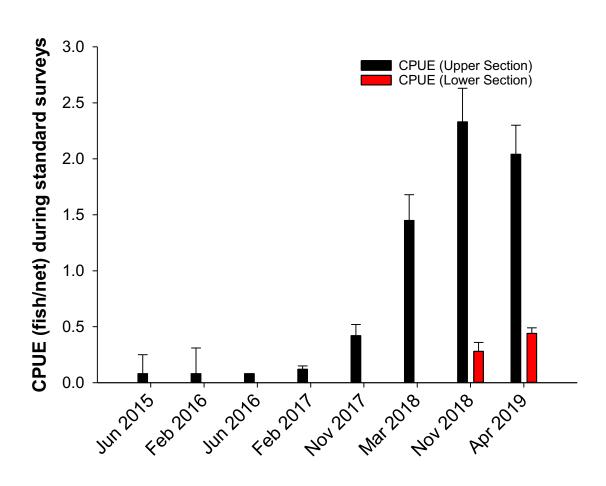
# Expansion



Predator bite on kokanee

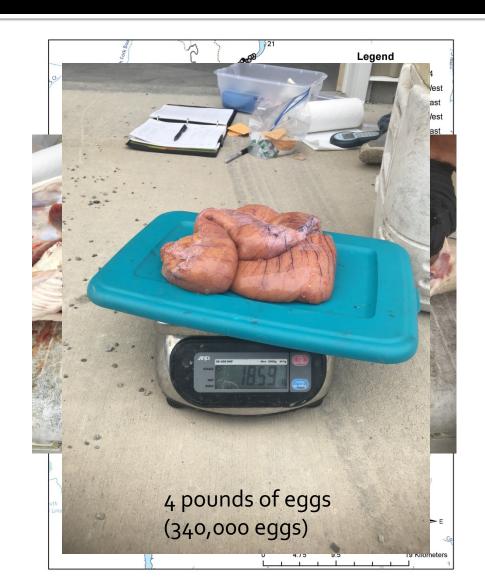


## Standard Reservoir Surveys



## All Hands on Deck Suppression

- Primary pike spawn time early
  May in Roosevelt
- Fish are shallow (<20 ft) and in spawning congregations
- Regional partners collaborated on a week on long intense suppression effort May 6-10
- Prior to hatchery net pen releases (500,000 trout)
- 10 boats, 5 agencies, set 475
  nets and removed 439 Pike
  - 220 females and approximately 2.2 million eggs



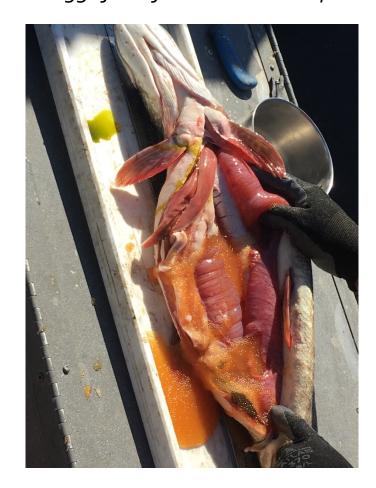
#### **Northern Pike Catch**

Multiple size classes captured



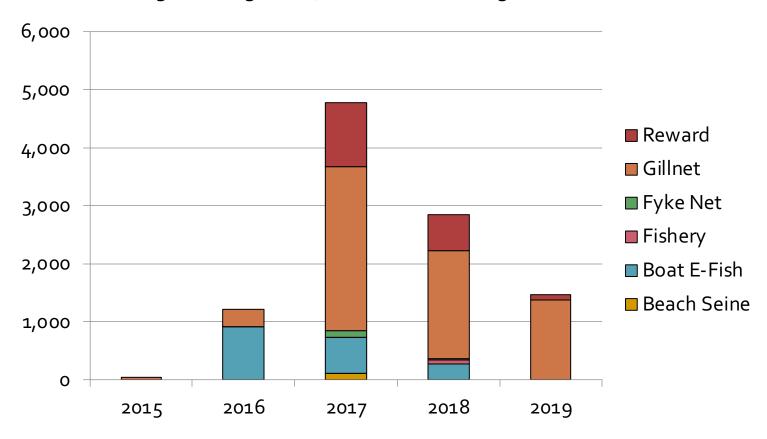


Loose eggs from female about to spawn



#### **Overall Suppression Summary**

- Since 2015, 10,341 Northern Pike have been removed from Lake Roosevelt
- 62% of those via gillnetting and 17% via Reward Program



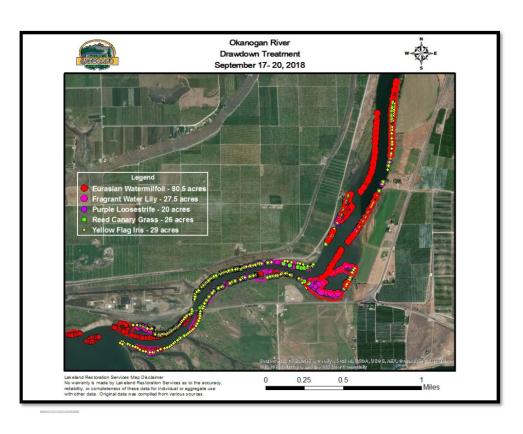
## **Setline Experiments**



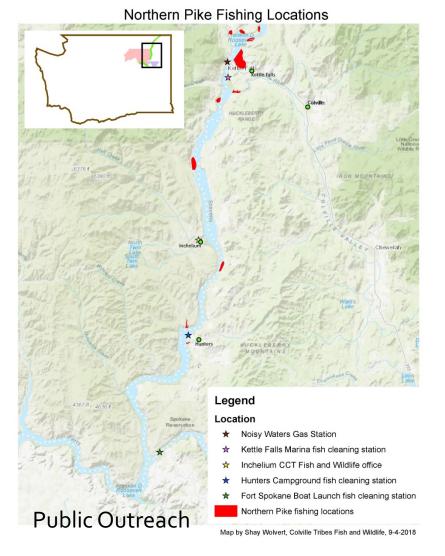
- Limited use of gillnets in the anadromous zone
- Gear type to use is shallow water, limited boat access
- Does not catch White Sturgeon,
  Burbot, or suckers
- Setlines
  - Fish off the bottom
  - Steel leader
  - Proper hook size
  - Proper bait

#### **Aquatic Invasive Plants**

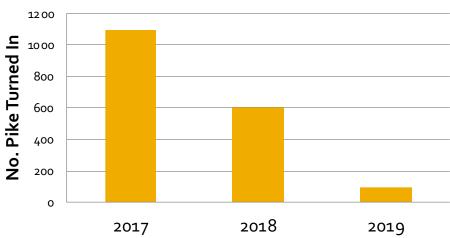
- Require plants to spawn
- Research shows Pike prefer to spawn on grasses, sedges or rushes with fine leaves and large amounts of basal cover McCarraher and Thomas 1972
  - Milfoil, reed canary grass and yellow flag iris
- Proactive Actions
  - CCT/Okanagan County Noxious Weed Board (Anna Lyon) teamed up to implement a herbicide treatment in Sept 2018 at the mouth of the Okanogan River
  - 183 acres were treated



# Reward Program



#### Reward \$17,890







## **Ongoing Program**

- Research/Monitoring/Suppression
  - Reservoir wide surveys (May/Oct) WDFW
  - Microchemistry research (Spokane River Pike) - PNNL
  - eDNA monitoring (72 sites) (DPUD, USFWS)
  - DNA study Dr. Carim (IDFG, Coeur 'd Alene Tribe, Muckleshoot Tribe)
  - Public Outreach ongoing all partners
  - Need to secure funding



Native Burbot in Pike stomach



Juvenile N. Pike

#### **Questions?**

#### Many Thanks







































