

2014 Ich Outbreak

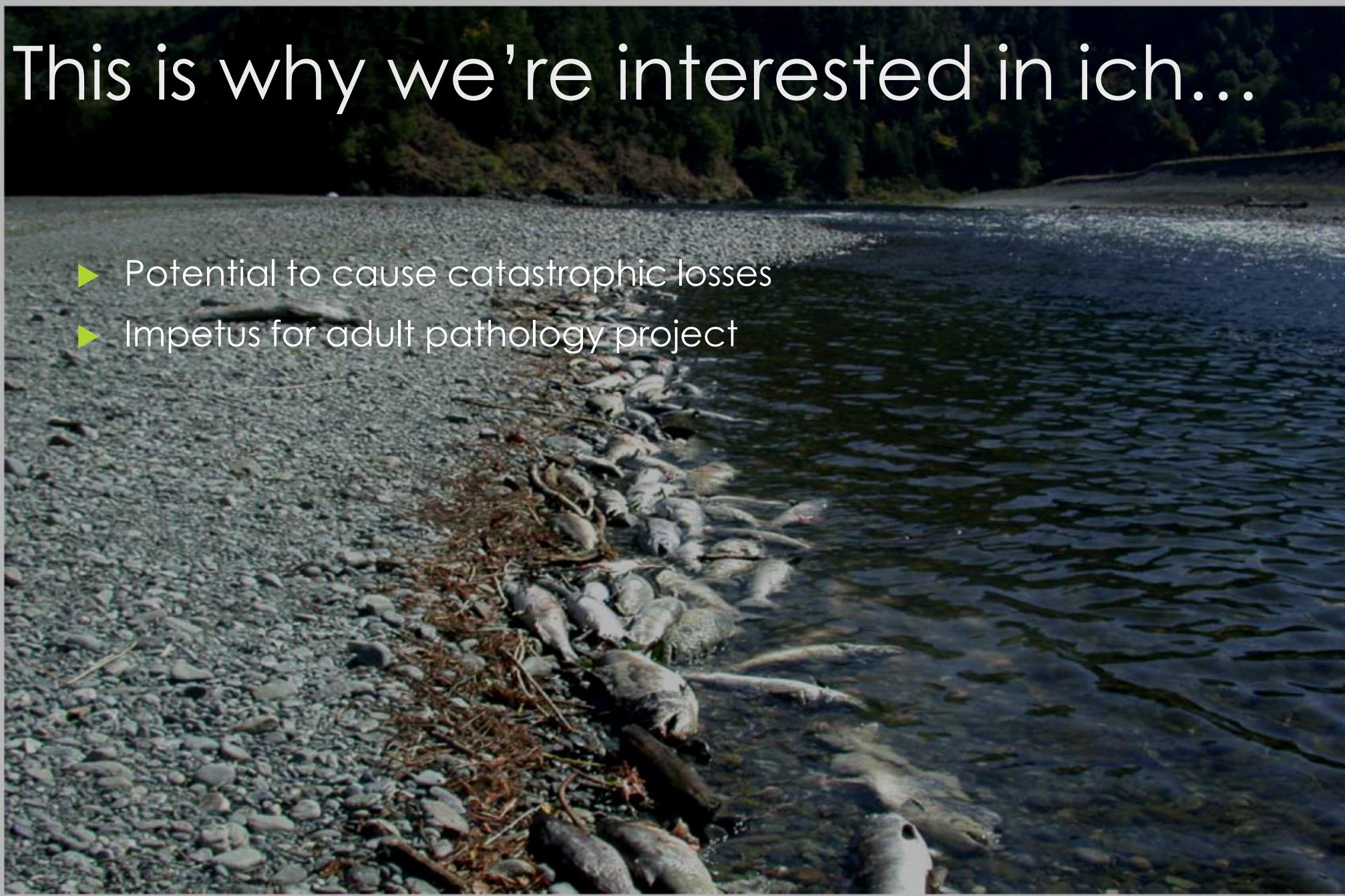
Klamath River

YUOK TRIBAL FISHERIES PROGRAM



This is why we're interested in ich...

- ▶ Potential to cause catastrophic losses
- ▶ Impetus for adult pathology project



YTFP Adult Pathology Project

- ▶ Done since 2003
- ▶ Only ich detected was in 2003
 - ▶ Problems with false positives due to metacercaria
- ▶ 2014 Project started early due to:
 - ▶ High numbers of fish at Blue Creek
 - ▶ Extremely low flows and drought conditions



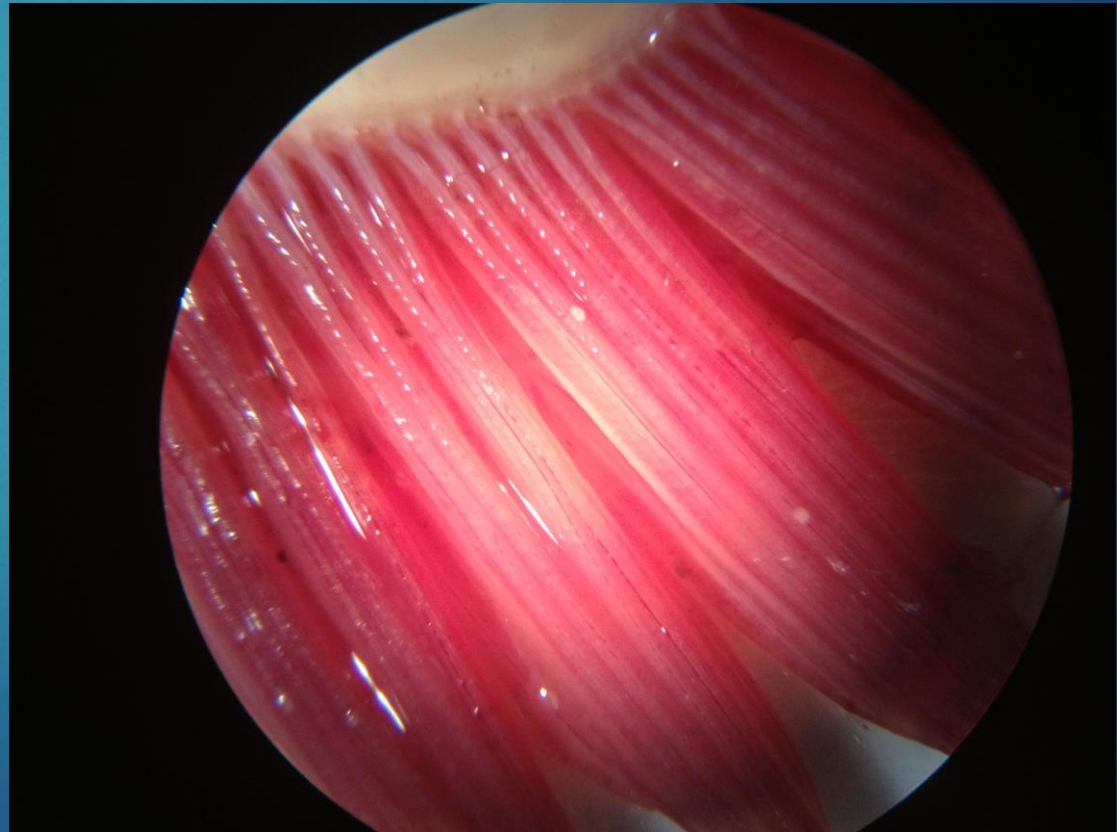
2014 Ich Sampling Effort

- ▶ Started on July 17; mostly at Blue Creek
- ▶ Large numbers of adult salmonids (many steelhead) holding in refugia at Blue and Pecwan Creeks due to high temperatures
- ▶ No detections at first...



July 25, 2014

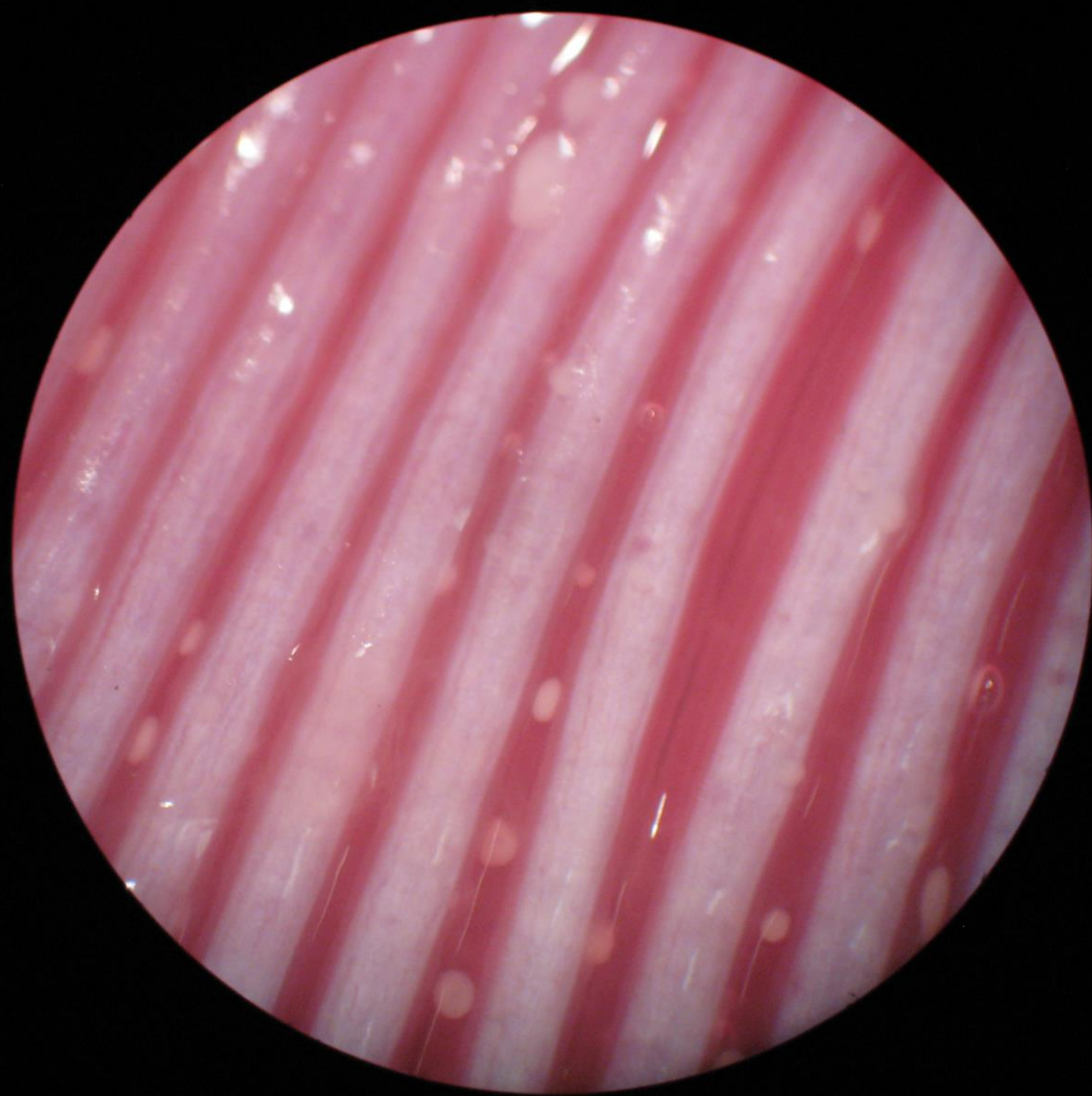
- ▶ Crew captured a pink salmon at Pecwan refugia
- ▶ We were told it was NOT ich



September 13, 2014

- ▶ We had turned in several slide imprints to USFWS; and ich was confirmed on several of them
- ▶ Sampling event took place at Tectah Creek





Timeline:

- ▶ September 15; Dr. J. Scott Foott comes to the Yurok Reservation and confirms presence of ich.
 - ▶ Ich found in 11/26 fish; 5 with “severe” (<30/gill arch)
- ▶ No protocol yet exists for counting ich on a gill arch
 - ▶ Protocol developed using dissecting scope and “surface count” of ich
- ▶ September 15 through October 8; multiple sample events at various locations on the Klamath and Trinity Rivers on the Yurok Reservation
- ▶ October 14-29; additional samples taken at Iron Gate Hatchery (Thank you to CDFW)

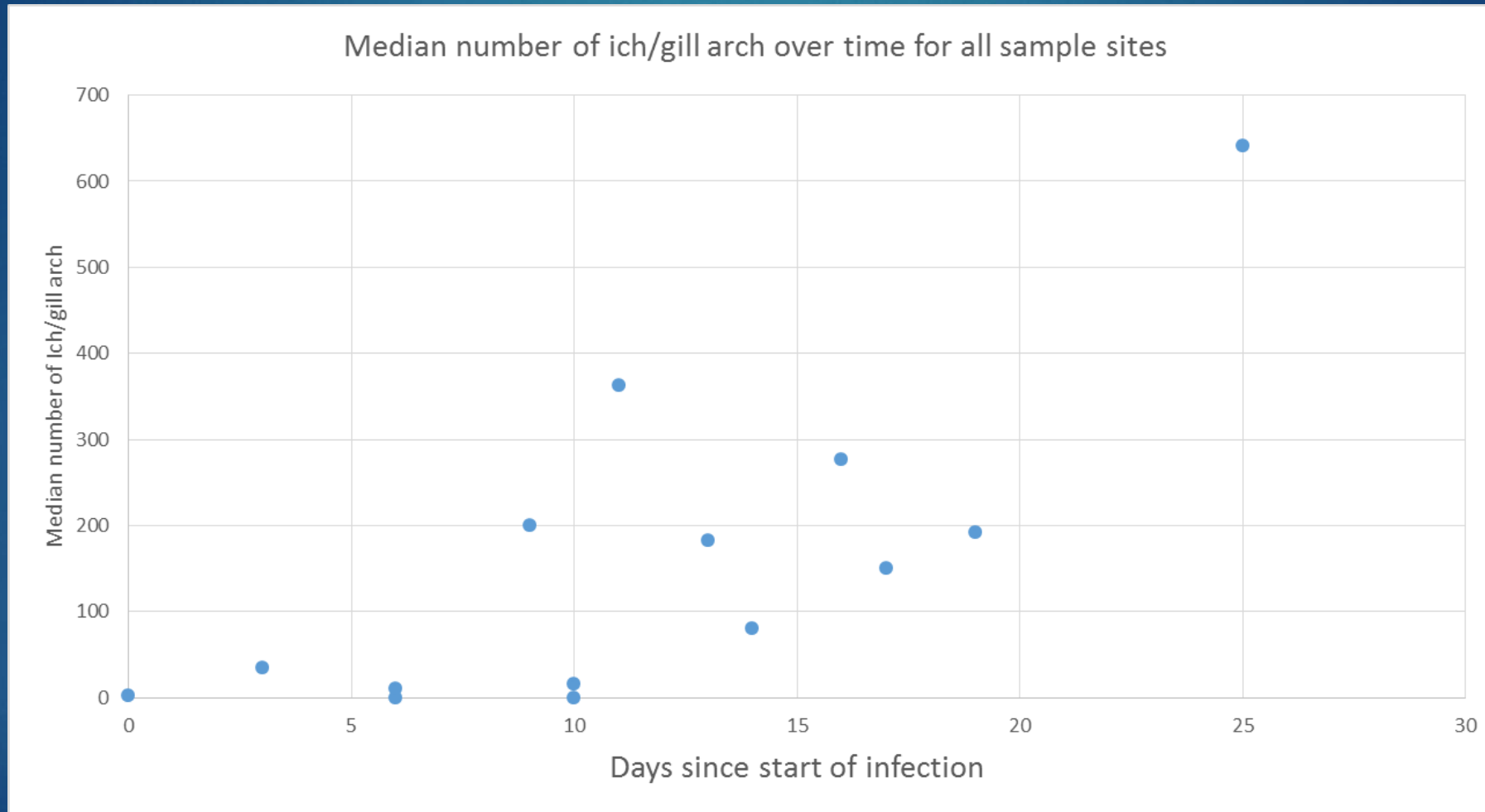


2014 Ich Sampling Objectives

- ▶ Geographic scope of ich
 - ▶ Karuk and HVT assistance (thank you)
- ▶ Temporal variation at a single location
- ▶ Overall picture
- ▶ Hampered by inability to obtain fish from above reservations

Results

- Ich increased exponentially on the Yurok Reservation



Sampling at IG and TR Hatcheries

- ▶ No fish had more than 8 ich / gill arch

Location	Date	Sample size	Clean	proportion clean	Max Ich
IG Hatchery	10/14/2014	24	13	54%	8
IG Hatchery	10/21/2014	24	13	54%	6
IG Hatchery	10/29/2014	20	15	75%	3
TR Hatchery	11/13/2014	20	11	55%	3