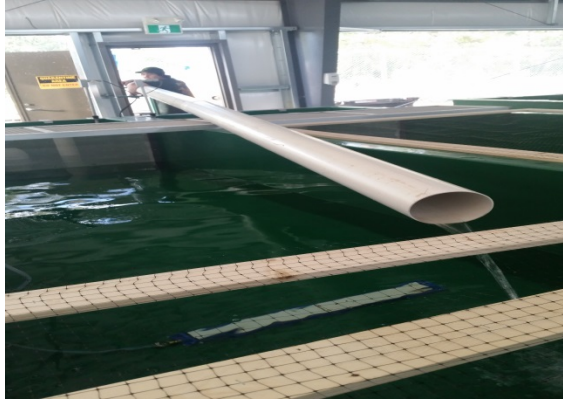


A Brief History of the kł c̓əlk̓ stím̓ Hatchery 2014 - 2018



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Hatchery Biologist

Acknowledgements



CHELAN COUNTY



Fisheries and Oceans
Canada

Pêches et Océans
Canada



Special Thanks

Chief and Council
Pauline Terbasket

Howie Wright

Norman Johnson

ONA Fisheries

Hatchery Staff

Herb Alex

Zeke Terbasket

Cindi Gottfriedson

Colt Jack

Yolanda George

Ashley Martin



“Cause to Come Back”

kł c'pəl'k stim Hatchery

- 2014 first year of operation
- First 10 yrs. satellite hatchery - Shuswap River hatchery.
 - 7-8 million Sockeye fry released



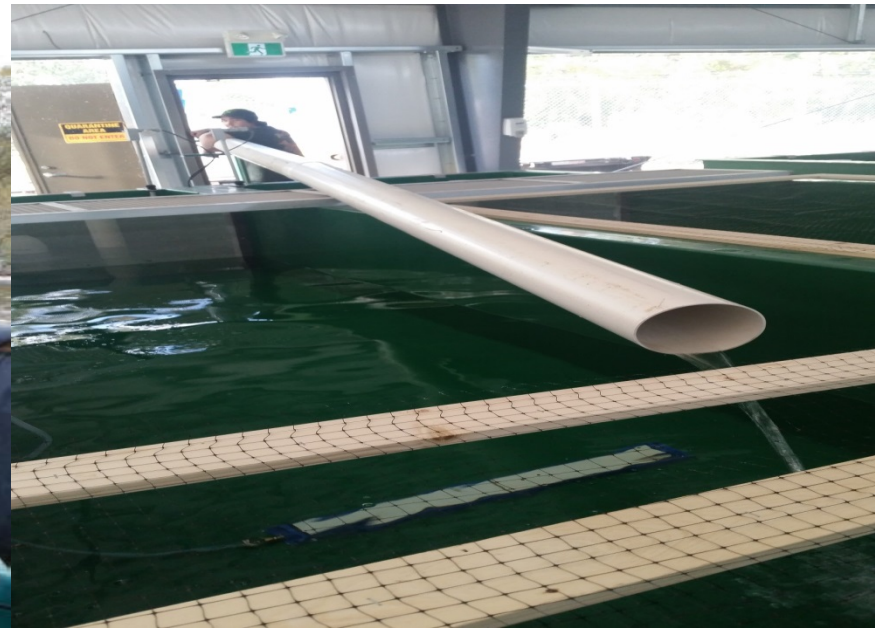
kł c'pəl'k stim Hatchery

- 6 fulltime, 3 part time staff
- 25,000 square foot facility
- 15,000 litres/minute
- Released 8.5 million from kł c'pəl'k stim



Broodstock

- On-site collection in Oliver, BC
 - Holding 2 days max.
- Transport and hold at hatchery (started BY2016)
 - Hold until ripe and ready



Cryopreservation

- Protection of valuable stocks
- Our Sockeye are SPECIAL!
- Freeze milt from each generation
- Natural disasters or low runs



Incubation

- 32 Kitoi boxes; 12 Heath stacks
- Incubate 8 million eggs
- Ground water = 9.5°C
- Cold water = 2.0°C



Rearing

- 23 raceways - 300,000 one gram fry
- 4 Cap troughs - smaller groups
- 3 release strategies (March, April, May)
- Pond .150 gram fry



Objectives

- **Objectives are determined yearly by:**
 - Chiefs and Council
 - COBTWG (Canadian Okanagan Basin Technical Working Group)
 - BOBTWG (Bilateral Okanagan Basin Technical Working Group)

Objectives

- 1. Collect and fertilize 3-5 million Sockeye eggs**
- 2. Greater than 90% survival rate to release**
- 3. Assess and improve broodstock and fertilization management techniques**
- 4. To better educate and train Syilx people**

BY 2014

Holding Pens	Net
Holding	5 days
Collection Site	Oliver
Brood transport	x
Cryopreservation	✓
Milt Activator	x
Pre-eyed picks	x
2 nd Ovadine Treatment	x

BY 2014

Green Eggs	Green-Eyed (% survival)	Released (% survival)	In-lake fry to presmolt survival
2,451,783	1,913,469 (78%)	1,764,223 (70.8%)	37.3%

BY 2015

Holding Pens	Net and Aluminum
Holding	5 days
Collection Site	Oliver and Pen Channel
Brood transport	x
Cryopreservation	✓
Milt Activator	x
Pre-eyed picks	x
2 nd Ovadine Treatment	x

BY 2015

Green Eggs	Green-Eyed (% survival)	Released (% survival)	In-lake fry to presmolt survival
507,990	408,285 (80%)	367,572 (72%)	32.9%

BY 2016

Holding Pens	Aluminum
Holding	2 days max.
Collection Site	Oliver and Pen Channel
Brood transport	✓
Cryopreservation	✓
Milt Activator	✓
Pre-eyed picks	✓
2 nd Ovadine Treatment	✓

BY 2016

Green Eggs	Green-Eyed (% survival)	Released (% survival)	In-lake fry to presmolt survival
5,498,281	5,308,941 (96.6%)	5,177,433 (94.5%)	*Analyzing*

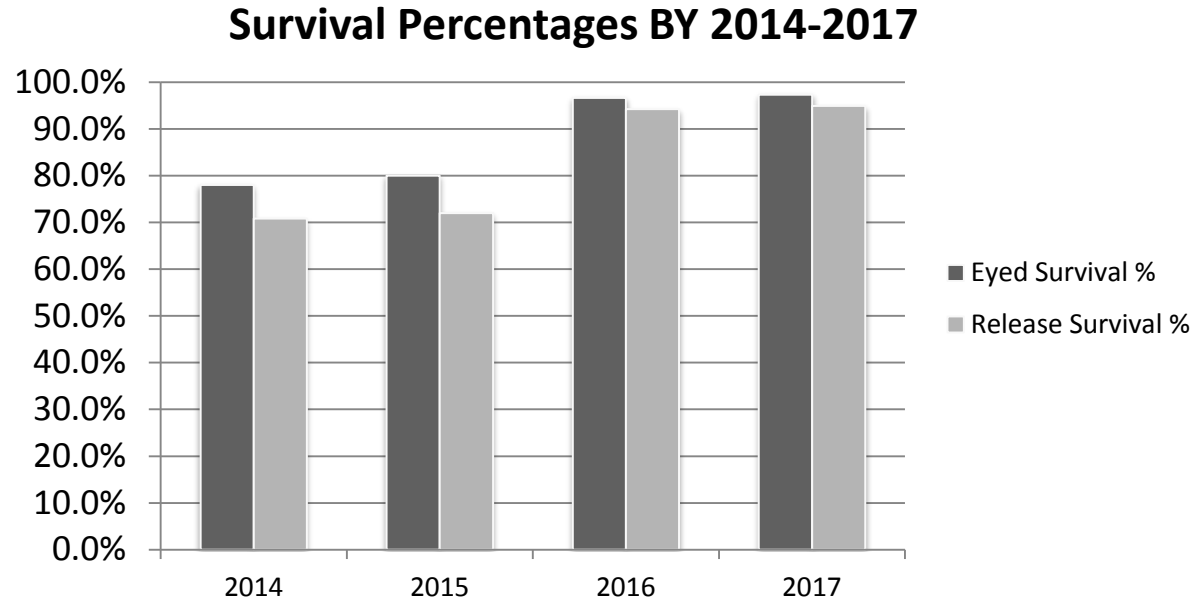
BY 2017

Holding Pens	Aluminum
Holding	2 days max.
Collection Site	Oliver
Brood transport	✓
Cryopreservation	✓
Milt Activator	✓
Pre-eyed picks	✓
2 nd Ovadine Treatment	✓

BY 2017

Green Eggs	Green-Eyed (% survival)	Current (% survival)	In-lake fry to presmolt survival
1,312,429	1,277,440 (97.3%)	1,245,526 (94.9%)	*Releasing; March, April, May

Summary



- All aluminum pens
- Holding – 2 days
- Transport brood
- Milt activator
- Pre-eyed picks
- 2nd ovadine treatment
- Volitional releases
- Experience!!

Conclusions

- Collected over 9 million Sockeye eggs
- Survival percentages greater than **90%** two of last four years
- Improved brood and fertilization techniques
- Improved knowledge of Fish Culturists
- Experience!

Questions

