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# Yakama Nation Pacific Lamprey Project Outreach and Education, 2017



[Cover Photo: Yakama Nation Tribal School (Toppenish, WA) students releasing adult Pacific Lamprey in Satus Creek on March 30, 2017]

Project No. 2008-470-00

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#### **Report Created: March, 2018**

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## **Summary**

Yakama Nation Fisheries Resource Management Program Pacific Lamprey Project (YN PLP) has a duty to educate the public about Pacific Lamprey. Pacific Lamprey has become infamous, in part, to the notoriety of the Sea Lamprey in the Great Lakes. The ecological and cultural significance has become lost among youth and the new generations. Conservation of this species is critical, and if the public is not educated about the importance of Pacific Lamprey, there will be no focus on their restoration.

For the YN PLP, our primary concern is to restore the Pacific Lamprey to its rightful place in the culture of the Columbia Basin Native Americans. From a tribal perspective, the decline of lamprey equals a loss of a family member, a close friend, and a loss of an important culture. Many young tribal members do not know how to catch and prepare lamprey for drying, while myths and legends associated with lamprey are being forgotten or lost. We need to dissuade the public of the "River Monster" view of Pacific Lamprey. When we open our hatchery for tours and invite schools, organizations, and the general public to our release events, we have an opportunity to educate them. We have created a variety of visual displays and interactive exhibits. Our team members give presentations about the life cycle, history, cultural significance, medicinal uses of lamprey, and the problems they face. Gaining the support of the public is a vital part of restoring Pacific Lamprey to their rightful place.

We must continue to educate through school presentations, lamprey in the classroom programs, hands-on tours for college students, and reach out to other biologists and fishery managers. At release events, the visitors are able to hold a lamprey and release it into the river. Providing a hands-on experience for people to hold and touch the lamprey is a memorable event for visitors. It can dispel their image of the monstrous lamprey and many come to find this an incredible creature.

Last year, through our community events and hatchery tours, totaling **32** events, we reached out to over **1,650** students, **102** teachers, **259** agency workers, and **1,239** people from the general public, reaching over **3,250** people combined. Ralph Lampman also gave a presentation about Pacific Lamprey restoration work in Ishikawa, Japan, and participated in the release of artificially propagated Arctic larval lamprey (see Appendix E2 for more information).

Our team gives presentations to the scientific community, funding sources, and fisheries managers frequently. In 2017, our biologists and partners sharing YN PLP work gave over 22 presentations at a variety of conferences and meetings, including American Fisheries Society chapter meetings, California Lamprey Passage Workshop, and Lamprey Summit III, targeting the scientific and fisheries community, ranging in locations from Eureka, California, to Ghent,

Belgium. Through scientific presentations, we reached out to over **650** students, **131** teachers, **1,285** agency workers, reaching over **2,066** people combined.

Local news and social network media, and various educational blogs continue to support our outreach efforts and are helping to promote the need to restore Pacific Lamprey. We take the initiative to announce various outreach events through the local news media and we take the time to provide feedback to reporters and bloggers to ensure they get their stories on Pacific Lamprey written as accurately and correctly as possible. Through these various media outreach, totaling **13 sources**, we estimated that we reached out to over **101,336** people from the general public, based on a very conservative estimate.

For the Pacific Lamprey Project, 2017 was an outstanding year of good publicity with many opportunities to reach out to students, teachers, partners, and the general public. All together, we reached out to over **2,300** students, **233** teachers, **1,544** agency workers, and **102,575** people from the general public, totaling over **106,652** people. We have many opportunities to continue to reach out to the public and all of us on our team will continue to do our best to be the rightful spokesperson and messenger for the Pacific Lamprey, using various means available.

				# of	# of	# of Agency	# of General	# of People
Date	Event	Location	Type of Event					
/24/2017	Lower Satus Adult Translocation Release	Satus, WA	Outreach	10	1	0	0	11
/28/2017	La Salle High School In-Class Lamprey Presentation	Union Gap, WA	Outreach	19	1	0	0	20
/29/2017	Lower Ahtanum Adult Translocation Release	Union Gap, WA	Outreach	31	3	0	0	34
/30/2017	Lower Satus Adult Translocation Release	Satus, WA	Outreach	22	3	0	0	25
/30/2017	Christian Brothers High School Lamprey Workday	Prosser, WA	Outreach	12	2	0	0	14
4/8/2017	Lower Yakima Adult Translocation Release	Prosser, WA	Outreach	60	3	3	60	126
/12/2017	Methow Adult Translocation Release	Winthrop, WA	Outreach	10	1	3	0	14
/13/2017	Prosser Hatchery Tour – Heritage University Lab Class	Prosser, WA	Outreach	5	1	1	0	7
/17/2017	Methow Adult Translocation Release	Winthrop, WA	Outreach	0	0	3	4	7
	Wenatchee Adult Translocation Release			0 47	8	0	4	57
/19/2017		Levenworth, WA	Outreach					
/22/2017	Central Washington University Salmon Run	Ellensburg, WA	Outreach	50	5	0	30	85
/22/2017	Prosser Science Expo	Prosser, WA	Outreach	70	5	5	140	220
/27/2017	Lower Yakima Adult Translocation Release	Prosser, WA	Outreach	10	3	0	1	14
5/4/2017	Prosser Hatchery Tour – Toppenish Middle School	Prosser, WA	Outreach	148	5	1	5	159
5/9/2017	Upper Toppenish Adult Translocation Release	White Swan, WA	Outreach	20	2	0	0	22
/11/2017	Lower Yakima Adult Translocation Release & Prosser Hatchery Tour	Prosser, WA	Outreach	100	5	1	5	111
/16/2017	Prosser Hatchery Tour – Pioneer Elementary School	Prosser, WA	Outreach	132	5	0	5	142
/18/2017	Prosser Hatchery Tour – Sunnyside Christian School	Prosser, WA	Outreach	33	3	0	3	39
/18/2017	Prosser Hatchery Tour – Northwest High School	Prosser, WA	Outreach	60	4	0	4	68
/23/2017	Prosser Hatchery Tour – Smith Elementary School	Prosser, WA	Outreach	48	2	0	2	52
/24/2017	Prosser Hatchery Tour – Pioneer Elementary School	Prosser, WA	Outreach	140	5	0	5	150
/24/2017	Benton County Soil and Water Conservation District Salmon Release	Prosser, WA	Outreach	40	4	2	2	48
/31/2017	Prosser Hatchery Tour - Wapato Middle School	Prosser, WA	Outreach	58	2	0	2	62
6/9/2017	Treaty Day Parade	Toppenish, WA	Outreach	300	10	100	500	910
/19/2017	Arctic Lamprey larvae release in Ishikawa, Japan	Ishikawa, Japan	Outreach	15	2	5	20	42
/28/2017	Intertribal Timber Council Tour at Toppenish Creek	White Swan, WA	Outreach	15	0	100	15	130
/15/2017	Campbell Farm Summer Camp	Wapato, WA	Outreach	30	2	2	2	36
/31/2017	Wenatchee Adult Translocation Release	Levenworth, WA	Outreach	5	0	10	10	25
/14/2017	Methow Adult Translocation Release	Winthrop, WA	Outreach	0	0	8	2	10
/22/2017	Central Washington State Fair	Yakima, WA	Outreach	100	10	0	300	41
0/25/2017	NRCS - WA County Conservation District Tour	Prosser, WA	Outreach	0	0	10	0	10
1/11/2017	Native American Month Celebration – Arts, Crafts, & Culture Day	Richland, WA	Outreach	60	5	5	120	190
/26/2017	Yakima Basin Irrigation Board Meeting	Yakima, WA	Science Pres.	0	0	30	0	30
/30/2017	California Lamprey Passage Workshop	Eureka, CA	Science Pres.	15	0	50	0	65
3/1/2017	Idaho Chapter of AFS (American Fisheries Society) Annual Meeting	Boise, ID	Science Pres.	50	10	150	Ő	210
3/2/2017	Oregon Chapter of AFS (American Fisheries Society) Annual Meeting	Bend, OR	Science Pres.	20	5	30	Ő	55
3/2/2017	Oregon Chapter of AFS (American Fisheries Society) Annual Meeting	Bend, OR	Science Pres.	15	5	35	0	
J/2/2017	Washington/BC Chapter of AFS (American Fisheries Society) Annual Meeting	Spokane, WA	Science Pres.	15	5	35	0	55 55
1/11/2017	Washington/BC Chapter of AFS (American Fisheries Society) Annual Meeting	Spokane, WA	Science Pres.	30	5	115	0	150
/12/2017	Matthew Dunkle, Master of Science Thesis Presentation, University of Idaho	Moscow, ID	Science Pres.	40	10	10	0	60
/18/2017	10th Annual Columbia Gorge Fisheries and Watershed Science Conference	The Dalles, OR	Science Pres.	10	0	60	0	70
/26/2017	CRITFC Lamprey Task Force Meeting	Portland, OR	Science Pres.	0	0	30	0	30
6/15/2017	Annual Yakima Basin Science and Management Conference	Ellensburg, WA	Science Pres.	20	5	55	0	80
/15/2017	Annual Yakima Basin Science and Management Conference	Ellensburg, WA	Science Pres.	20	5	55	0	80
/10/2017	Lamprey Identification and Tagging Training	Wenatchee, WA	Science Pres.	0	1	50	0	51
9/4/2017	LARVI 2017: 7th Fish & Shellfish Larviculture Symposium	Ghent, Belgium	Science Pres.	100	20	100	0	220
/21/2017	American Indian Science and Engineering Society	Denver, CO	Science Pres.	150	30	50	0	230
0/18/2017	Corps-Tribal Lamprey Passage Workgroup: Lamprey Information Session	Pendleton, OR	Science Pres.	0	0	40	õ	40
2/6/2017	Lamprey Summit III (Once Every 5-Year Event)	Portland, OR	Science Pres.	30	5	70	0	105
2/6/2017	Lamprey Summit III (Once Every 5-Year Event)	Portland, OR	Science Pres.	30	5	70	Ő	10
						70		10
2/6/2017	Lamprey Summit III (Once Every 5-Year Event)	Portland, OR	Science Pres.	30	5		0	
2/6/2017	Lamprey Summit III (Once Every 5-Year Event)	Portland, OR	Science Pres.	30	5	70	0	10
2/6/2017	Lamprey Summit III (Once Every 5-Year Event)	Portland, OR	Science Pres.	30	5	70	0	10
2/7/2017	Lamprey Summit III (Once Every 5-Year Event)	Portland, OR	Science Pres.	15	5	40	0	60
2017	Facebook – "Luna the Lamprey"	Website	Media	-	-	-	1827	182
2017	Facebook - "Yakima Nation Fisheries"	Website	Media	-	-	-	1674	167
/5/2017	Tri-City Herald – "Public can watch lamprey released on Saturday in Prosser"	Newspaper & Website	Media	-	-	-	5700	570
\$/6/2017	Daily Sun News – "Tribe to release lampreys"	Newspaper & Website	Media	-	-	-	490	49
1/8/2017	Tri-City Herald – "Learning to love the (Pacific) lamprey"	Newspaper & Website	Media	-	-	-	5700	570
10/2017	Daily Sun News – "Ancient Fish – Restoration event focuses on lamprey"	Newspaper & Website	Media			-	490	49
10/2017	YakTriNews.com / KAPP, KVEW TV – "Pacific Lamprey save local woman's life"	TV & Website	Media			-	490 8400	840
				-	-	-		
24/2017	Methow Valley News – "Lampreys released in Methow Valley to help restore population"	Newspaper & Website	Media	-	-	-	180	18
19/2017	Artificially propagated Arctic Lamprey larvae released in Noto, Ishikawa, Japan	Newspaper & Website	Media	-	-	-	35000	350
/21/2017	American Fisheries Society Science Blog - "Conservation efforts for an unlikely hero"	Website	Media	-	-	-	1200	120
/29/2017	USFWS Blog – "The #Filter that makes Pacific Lamprey pretty (in the eyes of biologists)"	Website	Media	-	-	-	600	60
)/8/2017	Tribal Tribune – "CTFW releases lampreys at Okanogan, Similkameen rivers"	Newspaper & Website	Media	-	-	-	75	75
1/2/2017	OPB – "The hidden world of Oregon's overlooked falls"	TV & Website	Media	-	-	-	40000	400

#### Table 1. List of 2017 Yakama Nation Pacific Lamprey Project outreach and education activities.

			# of	# of	# of	
	# of	# of	Agency	General	People	
Type of Event	Students	Teachers	Workers	Public	(Total)	
Outreach	1650	102	259	1239	3250	
Science Pres.	650	131	1285	0	2066	
Media	0	0	0	101336	101336	
Total	2300	233	1544	102575	106652	

Table 2. Summary of 2017 Yakama Nation Fisheries Pacific Lamprey Project outreach andeducation activities audience.

#### **Outreach (Tours and Events)**

#### 1. Lower Satus Adult Translocation Release

- Date: 3-24-2017
- Location: Toppenish Wildlife Refuge (Satus, WA)
- Presenters: Ralph Lampman, Tyler Beals, Sean Goudy, Leona Wapato, April Hull, Seiji Yanai, Hiroaki Arakawa
- Audience: Toppenish CATS Academy (High School Students)
- # of students: 10
- # of teachers: 1
- # of agency workers: 0
- # of general public: 0
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.



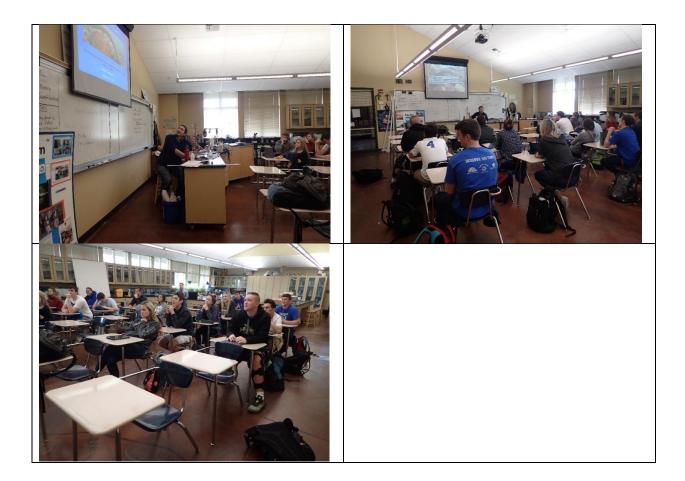






#### 2. La Salle High School In-Class Lamprey Presentation

- Date: 3-28-2017
- Location: La Salle High School (Union Gap, WA)
- Presenters: Ralph Lampman, Sean Goudy, Seiji Yanai
- Audience: La Salle High School (Environmental Science Class)
- # of students: 19
- # of teachers: 1
- # of agency workers: 0
- # of general public: 0
- Comments: Seiji Yanai, Professor from Ishikawa Prefectural University, Japan (our intern Hiroaki Arakawa's advisor) gave an introduction to Japanese river ecology restoration and Arctic Lamprey work. Sean Goudy gave a presentation on tribal culture and lamprey. Ralph Lampman gave a presentation on lamprey biology, threats, and restoration.



#### 3. Lower Ahtanum Adult Translocation Release

- Date: 3-29-2017
- Location: Fullbright Park (Union Gap, WA)
- Presenters: Ralph Lampman, Tyler Beals, Sean Goudy, Leona Wapato, April Hull, Seiji Yanai, Hiroaki Arakawa
- Audience: La Salle High School (Environmental Science Class), Christian Brothers High School
- # of students: 31
- # of teachers: 3
- # of agency workers: 0
- # of general public: 0
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.







#### 4. Lower Satus Adult Translocation Release

- Date: 3-30-2017
- Location: Toppenish Wildlife Refuge (Satus, WA)
- Presenters: Ralph Lampman, Tyler Beals, Sean Goudy, Leona Wapato, April Hull, Seiji Yanai, Hiroaki Arakawa
- Audience: Yakama Nation Tribal High School (10), Christian Brothers High School (12)
- # of students: 22
- # of teachers: 3
- # of agency workers: 0
- # of general public: 0
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.







#### 5. Christian Brothers High School Lamprey Workday

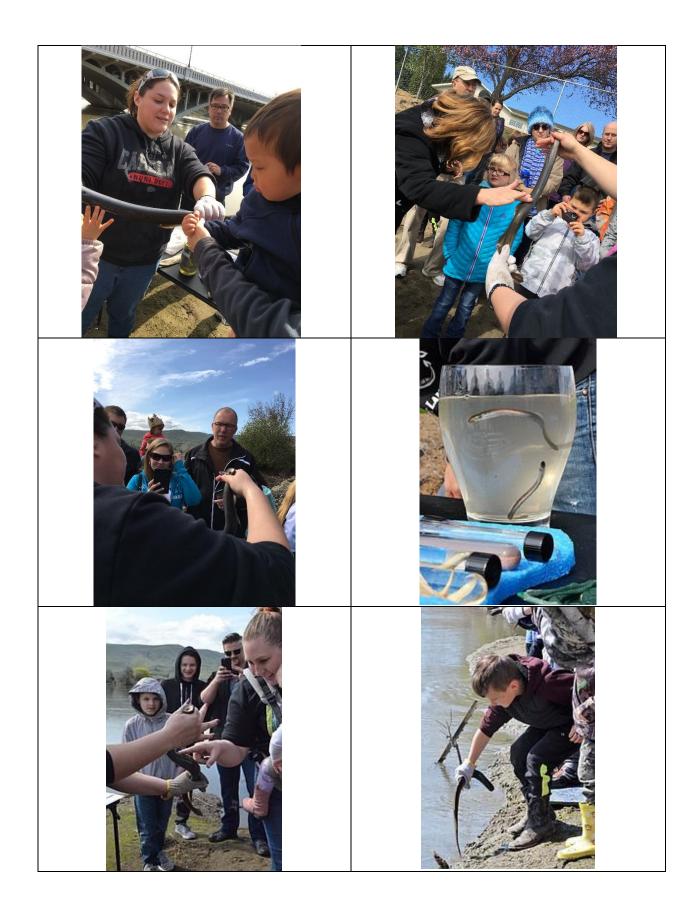
- Date: 3-30-2017
- Location: Prosser Hatchery and Dam (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Leona Wapato, Jared Swan, Hiroaki Arakawa, April Hull
- Audience: La Salle High School (Environmental Science Class)
- # of students: 12
- # of teachers: 2
- # of agency workers: 0
- # of general public: 0
- Comments: Gave the students a tour at Prosser Hatchery as well as Prosser Dam (new lamprey passage structures). The students and teachers from this school in California make a trip annually to volunteer and help with various Yakama Nation activities. We trained the students to PIT tag lamprey (including genetic clips and all associated measurements) and conduct subsampling of larval lamprey and showed general hatchery husbandry work. Also, shared the importance of the species culturally and ecologically.



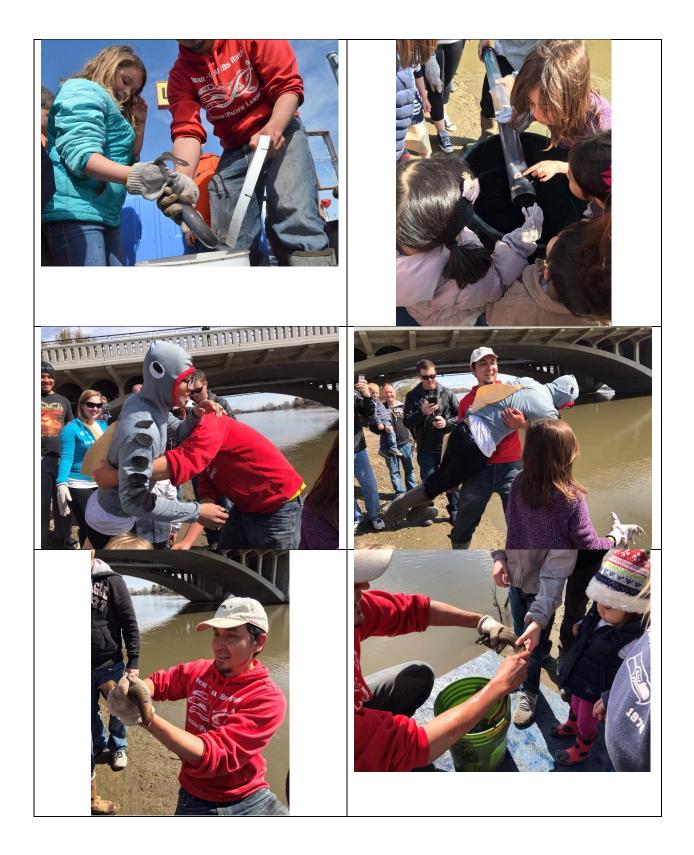
#### 6. Lower Yakima Adult Translocation Release

- Date: 4-8-2017
- Location: Prosser River by Les Schwab (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Sean Goudy, Leona Wapato, April Hull, Hiroaki Arakawa
- Audience: General Public (lots of families with kids)
- # of students: 60
- # of teachers: 3
- # of agency workers: 3
- # of general public: 60
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together. First open house adult lamprey release event in Prosser, which was very successful. See newspaper articles and website links at the bottom.











#### 7. Methow Adult Translocation Release

- Date: 4-12-2017
- Location: Heckendorn Park (Winthrop, WA)
- Presenters: Tyler Beals
- Audience: Methow Valley Independent Learning Center, other Yakama Nation Fisheries staff
- # of students: 10
- # of teachers: 1
- # of agency workers: 3
- # of general public: 0
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.





#### 8. Prosser Hatchery Tour – Heritage University Lab Class

- Date: 4-13-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Leona Wapato
- Audience: Heritage University students & Susan Camp (BOR)
- # of students: 5
- # of teachers: 1
- # of agency workers: 1
- # of general public: 0
- Comments: Gave an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.

#### 9. Methow Adult Translocation Release

- Date: 4-17-2017
- Location: Heckendorn Park (Winthrop, WA)
- Presenters: Ralph Lampman, Tyler Beals, Sean Goudy, April Hull

- Audience: Colville tribal members, Washington Department of Fish & Wildlife employees
- # of students: 0
- # of teachers: 0
- # of agency workers: 3
- # of general public: 4
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.



#### **10. Wenatchee Adult Translocation Release**

- Date: 4-19-2017
- Location: Jolanda Lake (Levenworth, WA)
- Presenters: Tyler Beals, Sean Goudy, April Hull
- Audience: Icicle Middle School and Beaver Valley School
- # of students: 47
- # of teachers: 8
- # of agency workers: 0
- # of general public: 2
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.





#### 11. Central Washington University Salmon Run

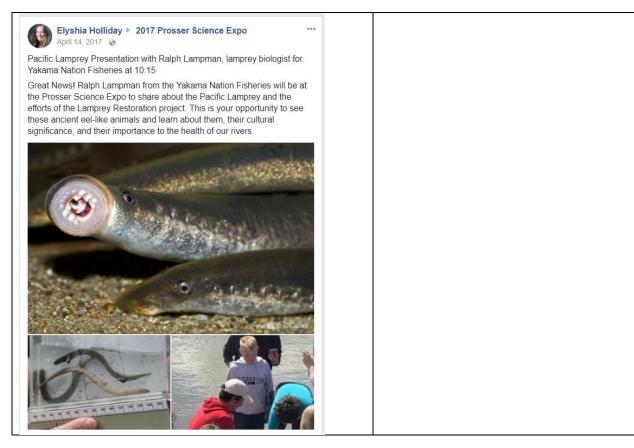
- Date: 4-22-2017
- Location: Central Washington University (Ellensburg, WA)
- Presenters: Dave'y Lumley
- Audience: Central Washington University students and community members
- # of students: 50
- # of teachers: 5
- # of agency workers: 0
- # of general public: 30
- Comments: Picked up adult and macrophthalmia (juvenile) Pacific Lamprey, Western Brook Lamprey transformers, and larvae of both species from Prosser Hatchery, set up a YN display table with lamprey and other outreach tools from start to end and then took fish back to Prosser. My table was placed inside of Dean Hall with a few others, and the majority of tables were outside so I didn't get the bulk flow of people. I spoke with about 15 children and about 25 adults/students. About twice as many people came by the table display.



#### 12. Prosser Science Expo

- Date: 4-22-2017
- Location: Prosser City Park (Prosser, WA)
- Presenters: Ralph Lampman
- Audience: General Public (lots of families with children)
- # of students: 70
- # of teachers: 5
- # of agency workers: 5
- # of general public: 140

• Comments: Picked up adult and macrophthalmia (juvenile) Pacific Lamprey, Western Brook Lamprey transformers, and larvae of both species from Prosser Hatchery, and gave a formal presentation on lamprey related to tribal culture, biology, threats, and restoration.



#### 13. Lower Yakima Adult Translocation Release

- Date: 4-27-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Jarod Swan, Leona Wapato
- Audience: Lutheran Church Messiah Day Care (small toddlers)
- # of students: 10
- # of teachers: 3
- # of agency workers: 1
- # of general public: 1
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together. A BOR media person was there filming the outreach and release and also conducted an interview.



### 14. Prosser Hatchery Tour – Toppenish Middle School

- Date: 5-4-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Jared Swan
- Audience: Toppenish Middle School (6<sup>th</sup> grade)
- # of students: 148
- # of teachers: 5
- # of agency workers: 1
- # of general public: 5
- Comments: Gave an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.



#### **15. Upper Toppenish Adult Translocation Release**

- Date: 5-9-2017
- Location: Private Land (White Swan, WA)
- Presenters: Ralph Lampman, Tyler Beals, Emily Washines, Jarod Swan
- Audience: Mt. Adams Elementary School
- # of students: 20
- # of teachers: 2
- # of agency workers: 0
- # of general public: 0
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.



#### 16. Lower Yakima Adult Translocation Release & Prosser Hatchery Tour

- Date: 5-11-2017
- Location: Prosser Hatchery & Yakima River (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Jared Swan, Leona Wapato, April Hull, Kinsey Frick (NOAA Fisheries)
- Audience: Wapato Elementary School (4<sup>th</sup> grade)
- # of students: 100

- # of teachers: 5
- # of agency workers: 1
- # of general public: 5
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery. Afterwards, released adult lamprey below Prosser Dam with all the students. Kinsey Frick from NOAA Fisheries also gave a talk to students after release about her job and related work on lamprey.







Dear Mr. Lampman ord friends ther your time and fetting us take up your time and fetting us put the lumprey's in the mer, it was Dear Ralph and Friends, Tamprey's in the men super fun! YAY! ad a fantastic time! My kids really Thank You! Thank you for an AWESOME field trip. We, as a sch Sincerely received from each ou gun enjoyed the info Zadie .M. enj for tak of the our kids hav nd adults of lamprey's life and fun. Also, May 11 appr everyone y with. The child through the path to release the lan vs into the Yakima River solendid v So in conclusion, May I take this opportunity to sincerely thank you once again for the spl isit. The children thoroughly enjoyed themselves as did my colleagues and parents who attended. We look forward to seeing you again in 2018. Thank you. Have a great day!! Sincerely, Kylee Trevino shua G. The Kyle tum uda

#### 17. Prosser Hatchery Tour – Pioneer Elementary School

- Date: 5-16-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Jared Swan
- Audience: Pioneer Elementary School (3<sup>rd</sup> grade)
- # of students: 132
- # of teachers: 5
- # of agency workers: 0
- # of general public: 5
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.

#### 18. Prosser Hatchery Tour – Sunnyside Christian School

- Date: 5-18-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Leona Wapato, Jared Swan
- Audience: Sunnyside Christian School (4<sup>th</sup> and 10<sup>th</sup> grade, 18 & 15 students respectively)
- # of students: 33
- # of teachers: 3
- # of agency workers: 0
- # of general public: 3
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.

#### 19. Prosser Hatchery Tour – Northwest High School

- Date: 5-18-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Leona Wapato, Jared Swan,
- Audience: Northwest High School
- # of students: 60
- # of teachers: 4
- # of agency workers: 0
- # of general public: 4
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.

## 20. Prosser Hatchery Tour – Smith Elementary School

- Date: 5-23-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Tyler Beals, Leona Wapato, Jared Swan,
- Audience: Smith Elementary School (4<sup>th</sup> & 5<sup>th</sup> grade)
- # of students: 48
- # of teachers: 2
- # of agency workers: 0
- # of general public: 2
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.

## 21. Prosser Hatchery Tour – Pioneer Elementary School

- Date: 5-24-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Leona Wapato, Jared Swan,
- Audience: Pioneer Elementary School (3<sup>rd</sup> grade)
- # of students: 140
- # of teachers: 5
- # of agency workers: 0
- # of general public: 5
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.





## 22. Benton County Soil and Water Conservation District Salmon Release

- Date: 5-24-2017
- Location: River-Side Private Land (Benton City, WA)
- Presenters: Sean Goudy, Rachel Little
- Audience: Kiona-Benton City Middle School (7<sup>th</sup> grade)
- # of students: 40
- # of teachers: 4
- # of agency workers: 2
- # of general public: 2
- Comments: Presentation to students. Live ammocoetes and adult lamprey were displayed. Question and answering session at the end.



## 23. Prosser Hatchery Tour – Wapato Middle School

- Date: 5-31-2017
- Location: Prosser Hatchery (Prosser, WA)
- Presenters: Ralph Lampman, Tyler Beals, Leona Wapato, Jared Swan,
- Audience: Wapato Middle School (8<sup>th</sup> grade)
- # of students: 58
- # of teachers: 2
- # of agency workers: 0
- # of general public: 2
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery.

## 24. Treaty Day Parade

- Date: 6-9-2017
- Location: City of Toppenish (Toppenish, WA)
- Presenters: Sean Goudy, Emily Washines
- Audience: General Public, YN Reservation Community Members
- # of students: >300
- # of teachers: >10
- # of agency workers: >100
- # of general public: >500
- Comments: Treaty Day parade, set up display table with aquarium, live lamprey, props, and question and answering. The area was packed with general public as there were many events and tables set up. All #s above are estimates as we were very busy most of the time with students and adults.



#### 25. Arctic Lamprey larvae release in Ishikawa, Japan

- Date: 6-19-2017
- Location: Machino River Park (Ishikawa, Japan)
- Presenters: Ralph Lampman, Hiroaki Arakawa, Seiji Yanai,
- Audience: Local 1<sup>st</sup> grade students
- # of students: 15
- # of teachers: 2
- # of agency workers: 5
- # of general public: 20
- Comments: Traveled to Ishikawa, Japan, to participate in an Arctic Lamprey larvae (artificially propagated) release event held by Ishikawa Prefectural University. Our YN intern from Japan (Hiroaki Arakawa) and his professor organized the event. Many news media (local TV and newspaper companies) were present as well to document the event. See newspaper articles and websites below and the separate report on this event. See **Appendix E2** for more information.

## 26. Intertribal Timber Council Tour at Toppenish Creek

- Date: 6-28-2017
- Location: Upper Toppenish Creek (White Swan, WA)
- Presenters: Ralph Lampman, Dave'y Lumley, Tom Elliott, Joshua Hall
- Audience: participants of the ITC conference (many tribal employees)
- # of students: 15
- # of teachers: 0
- # of agency workers: 100
- # of general public: 15
- Comments: Picked up adult and macrophthalmia (juvenile) Pacific Lamprey, Western Brook Lamprey transformers, and larvae of both species from Prosser Hatchery, and gave a formal presentation on lamprey related to tribal culture, biology, threats, and restoration. Large group of tribal agency employees and students working in the field of timber management.



## 27. Campbell Farm Summer Camp

- Date: 8-15-2017
- Location: Campbell Farm (Wapato, WA)
- Presenters: Sean Goudy, Emily Washines, Anthony Valdez-Bill
- Audience: Campbell Farm Summer Camp participants
- # of students: 30
- # of teachers: 2
- # of agency workers: 2
- # of general public: 2
- Comments: (From Emily) This is a very well known camp and farm program locally, as they have space to host overnight groups. UW Forestry stays with them each spring. Sean and Anthony had great guiding statements and questions for the kids. They asked questions, such as "do you know anyone that works at fisheries?" Which I thought was a great question and some kids did know others and we're excited to share. I'll have to add that question in my presentations. The kids loved the hands-on aspect. My kids went to

help present about the culture and legend. This is probably their 5th presentation they've had. When we got in the car, before I dropped them off at the sitter their feedback was, "I love learning about lamprey."



## 28. Wenatchee Adult Translocation Release

- Date: 8-31-2017
- Location: Jolanda Lake (Levenworth, WA)
- Presenters: Ralph Lampman, Tyler Beals, Dave'y Lumley, Leona Wapato
- Audience: General Public and agency employees
- # of students: 5
- # of teachers: 0
- # of agency workers: 10
- # of general public: 10
- Comments: Presented a full course of presentations on tribal culture, lamprey biology, importance of lamprey, and the restoration work. Afterwards released the adult lamprey together.

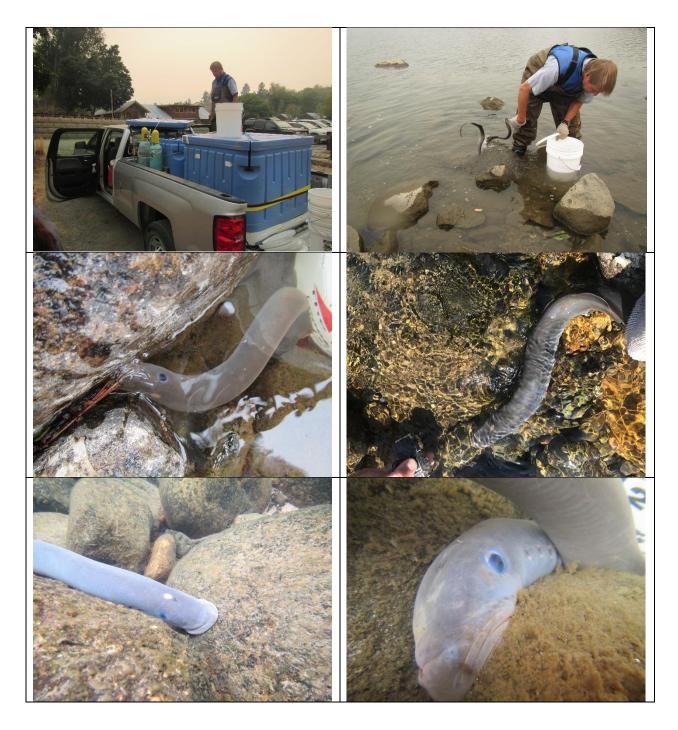




#### 29. Methow Adult Translocation Release

- Date: 9-14-2017
- Location: Heckendorn Park (Winthrop, WA)
- Presenters: Tyler Beals, Dave'y Lumley, Shekinah Saluskin
- Audience: agency employees and general public
- # of students: 0
- # of teachers: 0
- # of agency workers: 8
- # of general public: 2
- Comments: 1:25pm-1:40pm release time. Outreach event open to the public (Tyler email). Methow Salmon Recovery (briefly) John Crandall (& Kristen?)
  Two Colville Tribe employees (John and Paul) helped for each release
  Four YN Fisheries Employees from the Twisp Office helped at the park release
  2 people from the public observed the lamprey in the tote and were the the "quick" story (One man on a bicycle (passing by) & a lady that lives across the street from the park (saw the signs on the truck)). These are the only people that I remember. Anyone else Dave'y or Shekinah?? Some people also helped with the release at Twisp afterwards.





## **30. Central Washington State Fair**

- Date: 9-22-2017
- Location: State Fair Park (Yakima, WA)
- Presenters: Emily Washines
- Audience: Central Washington University students and community members
- # of students: 100
- # of teachers: 10

- # of agency workers: 0
- # of general public: 300
- Comments: Set up a YN display table with lamprey and other outreach tools from start to end of the state fair event.



## 31. NRCS – WA County Conservation District Tour

- Date: 10-25-2017
- Location: Prosser Hatchery and Prosser Dam (Prosser, WA)
- Presenters: Ralph Lampman, Sean Goudy, Leona Wapato
- Audience: NRCS and WA County Connservation District employees
- # of students: 0
- # of teachers: 0
- # of agency workers: 10
- # of general public: 0
- Comments: Presented an overview of Pacific Lamprey Project, tribal culture, importance of lamprey, lamprey biology, threats, and restoration work as well as a tour at Prosser Hatchery and Prosser Dam (lamprey passage structure which will be funded by NRCS for Sunnyside and Wapato dams).



## 32. Native American Month Celebration – Arts, Crafts, & Culture Day

- Date: 11-11-2017
- Location: Richland Public Library (Richland, WA)
- Presenters: Ralph Lampman
- Audience: General Public (lots of families with children)
- # of students: 60
- # of teachers: 5
- # of agency workers: 5
- # of general public: 120
- Comments: Picked up adult and macrophthalmia (juvenile) Pacific Lamprey, Western Brook Lamprey transformers, and larvae of both species from Prosser Hatchery, and gave a presentation on lamprey related to tribal culture, biology, threats, and restoration.



## **Scientific Presentations**

## 1. Yakima Basin Irrigation Board Meeting

- Date: 1-26-2017
- Presentation Title: "Refuge or Risk: Impacts of Irrigation Diversions on Larval/Juvenile Lamprey in the Yakima River Basin"
- Location: Yakima, WA
- Presenter: Tyler Beals
- Audience: Irrigation Diversion Managers
- # of students: 0
- # of teachers: 0
- # of agency workers: 30
- Comments: This presentation summarized our larval/juvenile monitoring work in irrigation diversions to update the irrigation diversion managers.

## 2. California Lamprey Passage Workshop

- Date: 1-30-2017
- Presentation Title: "Who the heck eats lamprey??? A Study designed to examine predation potential of larval lamprey by various native and non-native species"
- Location: Eureka, CA
- Presenter: Hiroaki Arakawa
- Audience: various agency fish biologists and students in California
- # of students: 15
- # of teachers: 0
- # of agency workers: 50
- Comments: This presentation summarized our larval lamprey predation study.



- 3. Idaho Chapter of AFS (American Fisheries Society) Annual Meeting
  - Date: 3-1-2017

- Poster Title: "Role of Post-Spawn Pacific Lamprey Carcasses"
- Location: Boise, ID
- Presenter: Ryan Dunbeck, Matthew Dunkle, Christopher Caudill, Ralph Lampman
- Audience: AFS members and college faculty staff and students (graduate and undergraduate)
- # of students: 50
- # of teachers: 10
- # of agency workers: 150
- Comments: This presentation summarized the post spawn Pacific Lamprey carcass study in Toppenish Watershed from 2016.

## 4. Oregon Chapter of AFS (American Fisheries Society) Annual Meeting

- Date: 3-2-2017
- Presentation Title: "Got Lamprey??? A Study designed to examine predation potential of larval lamprey by various native and non-native species"
- Location: Riverhouse on the Deschutes (Bend, OR)
- Presenter: Hiroaki Arakawa
- Audience: AFS members and college faculty staff and students (graduate and undergraduate)
- # of students: 20
- # of teachers: 5
- # of agency workers: 30
- Comments: This presentation summarized our larval lamprey predation study.

## 5. Oregon Chapter of AFS (American Fisheries Society) Annual Meeting

- Date: 3-2-2017
- Presentation Title: "Pacific Lamprey: Keeping a 450-million Year Tradition Alive and Strong in the Upper Columbia"
- Location: Riverhouse on the Deschutes (Bend, OR)
- Presenter: Tyler Beals
- Audience: AFS members and college faculty staff and students (graduate and undergraduate)
- # of students: 15
- # of teachers: 5
- # of agency workers: 35
- Comments: This presentation summarized our adult Pacific Lamprey restoration efforts in the Upper Columbia.

## 6. Washington/BC Chapter of AFS (American Fisheries Society) Annual Meeting

- Date: 4-11-2017
- Presentation Title: "Pacific Lamprey: Keeping a 450-million Year Tradition Alive and Strong in the Upper Columbia"
- Location: Spokane, WA
- Presenter: Ralph Lampman
- Audience: AFS members and college faculty staff and students (graduate and undergraduate)
- # of students: 15
- # of teachers: 5
- # of agency workers: 35
- Comments: This presentation summarized our adult Pacific Lamprey restoration efforts in the Upper Columbia.

## 7. Washington/BC Chapter of AFS (American Fisheries Society) Annual Meeting

- Date: 4-11-2017
- Poster Title: "Got Lamprey??? A Study designed to examine predation potential of larval lamprey by various native and non-native species"
- Location: Riverhouse on the Deschutes (Bend, OR)
- Presenter: Hiroaki Arakawa
- Audience: AFS members and college faculty and students (graduate and undergraduate)
- # of students: 30
- # of teachers: 5
- # of agency workers: 115
- Comments: This poster summarized our larval lamprey predation study.

## 8. Matthew Dunkle, Master of Science Thesis Presentation, University of Idaho

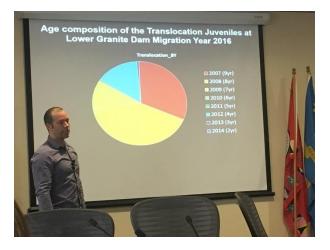
- Date: 4-12-2017
- Poster Title: "Resource Subsidies from Spawning Pacific Lamprey: Spatial Dynamics of Carcass Fate and Entry into Stream Food Webs"
- Location: University of Idaho (Moscow, ID)
- Presenter: Matthew Dunkle
- Audience: faculty staff and college students (undergrad and graduate) and agency staff
- # of students: 40
- # of teachers: 10
- # of agency workers: 10
- Comments: This presentation summarized Matt's thesis work on spawned out adult Pacific Lamprey carcasses and their role in stream ecosystems.

## 9. 10th Annual Columbia Gorge Fisheries and Watershed Science Conference

- Date: 4-18-2017
- Presentation Title: "Pacific Lamprey: Keeping a 450-million Year Tradition Alive and Strong in the Upper Columbia"
- Location: Columbia Gorge Discovery Center (The Dalles, OR)
- Presenter: Tyler Beals
- Audience: agency staff and students (undergraduate and graduate)
- # of students: 10
- # of teachers: 0
- # of agency workers: 60
- Comments: This presentation summarized our adult Pacific Lamprey restoration efforts in the Upper Columbia.

## **10. CRITFC Lamprey Task Force Meeting**

- Date: 4-26-2017
- Presentation Title: "Pacific Lamprey: Keeping a 450-million Year Tradition Alive and Strong in the Upper Columbia"
- Location: CRITFC Office (Portland, OR)
- Presenter: Ralph Lampman, Jon Hess
- Audience: Representatives from the Columbia River member tribes and CRITFC
- # of students: 0
- # of teachers: 0
- # of agency workers: 30
- Comments: This presentation summarized our adult Pacific Lamprey restoration efforts in the Yakama Nation Ceded Lands.



11. Annual Yakima Basin Science and Management Conference

• Date: 6/15/2017

- Presentation Title: "Pacific Lamprey Adult Translocation and Passage: Keeping a 450million Year Tradition Alive and Strong in The Upper Columbia"
- Location: Central Washington University, Science Building (Ellensburg, WA)
- Presenter: Tyler Beals
- Audience: Agency staff and college students
- # of students: 20
- # of teachers: 5
- # of agency workers: 55
- Comments: This presentation covered two topics; 1) Share a summary of YN's adult Pacific Lamprey translocation work throughout the Upper Columbia (2015-2017), and 2) show results and lessons learned from two VWW (Vertical Wetted Wall) lamprey passage structures implemented (by YN) at Prosser Dam in Fall, 2016.

## 12. Annual Yakima Basin Science and Management Conference

- Date: June 15, 2017
- Presentation Title: "Two Recent Pacific Lamprey Studies: Ecological Role of Adult Carcasses & Predation Potential of Larval Lampreys"
- Location: Central Washington University, Science Building (Ellensburg, WA)
- Presenter: Tyler Beals
- Audience: Agency staff and college students
- # of students: 20
- # of teachers: 5
- # of agency workers: 55
- Comments: This presentation covered two topics; 1) a summary of a research project led by Matt Dunkle (University of Idaho), which focused on the ecological role of adult Pacific Lamprey carcasses, and 2) a summary of a research project led by Hiroaki Arakawa (Japanese Intern from Ishakawa Perfecture University), which focused on the predation potential of larval lampreys by native and non-native fish species in the Yakima Subbasin.

## 13. Lamprey Identification and Tagging Training

- Date: 7/10/2017
- Presentation Title: "Lamprey Identification & Tagging Training"
- Location: Wenatchee Valley College, Wenatchi Hall, Room 2305 (Wenatchee, WA)
- Presenter: Ralph Lampman, Tyler Beals
- Audience: Agency staff and WVC faculty
- # of students: 0
- # of teachers: 1
- # of agency workers: 50

• Comments: This lamprey ID and tagging covered two topics; 1) how to identify lamprey of various life stages with a focus on larvae, using powerpoint presentation as well as hands-on training using live lamprey, and 2) how to measure and tag adult and larval lamprey, using PIT tags, VIE tags, and genetic clips.

## 14. LARVI 2017: 7th Fish & Shellfish Larviculture Symposium

- Date: 9-4-2017
- Poster Title: "Artificial Propagation of Pacific Lamprey"
- Location: Ghent University (Ghent, Belgium)
- Presenter: Mary Moser, Alexa Maine, Ralph Lampman, Jon Hess, Aaron Jackson
- Audience: Agency staff and college faculty staff and students (graduate and undergraduate)
- # of students: 100
- # of teachers: 20
- # of agency workers: 100
- Comments: The poster summarized our collaborative adult Pacific Lamprey artificial propagation efforts.



## 15. American Indian Science and Engineering Society

- Date: 9-21-2017
- Poster Title: "Traditional Ecological Knowledge (TEK) of Asum (Pacific Lamprey *Entosphenus tridentatus*): Interpreting TEK through Yakama Nation Culturally Relevant Methods"
- Location: Colorado Convention Center (Denver, CO)
- Presenter: Michael Buck, Ralph Lampman, Eliann Carr
- Audience: Agency staff and college faculty staff and students (graduate and undergraduate)
- # of students: 150
- # of teachers: 30

- # of agency workers: 50
- Comments: This poster summarized our tribal elder interview regarding lamprey and its associated culture as well as the traditional ecological knowledge related to the species.

## 16. Corps-Tribal Lamprey Passage Workgroup: Lamprey Information Session

- Date: 10-18-2017
- Presentation Title: "Tribal Pacific Lamprey Restoration Efforts: Technical, Management and Cultural Perspectives"
- Location: Nixyaawii Governance Center (Pendleton, OR)
- Presenter: Ralph Lampman, Aaron Jackson, Dave Statler, Brian McIlraith
- Audience: US Army Corps of Engineers staff from the region
- # of students: 0
- # of teachers: 0
- # of agency workers: 40
- Comments: The series of presentations presented by each member tribe summarized the adult translocation efforts and associated research and restoration. It was an information sharing session to educate the ACOE staff about the ecological and cultural importance of lamprey and the work that ensues beyond the adult collections at the Lower Columbia River dams.

- Date: December 6, 2017
- Presentation Title: "Updates on Adult Pacific Lamprey Passage Improvements in the Yakima Basin"
- Location: CRITFC Office (Portland, OR)
- Presenter: Ralph Lampman
- Audience: Various lampreys experts and enthusiasts from around the Pacific Northwest
- # of students: 30
- # of teachers: 5
- # of agency workers: 70
- # of general public: 0
- Comments: This presentation summarized recent work on Pacific Lamprey adult passage within the Yakima Subbasin, focusing on the new vertical wetted wall passage structures.



- Date: December 6, 2017
- Presentation Title: "Larval Lamprey and ID and Genetic Updates"
- Location: CRITFC Office (Portland, OR)
- Presenter: Tyler Beals
- Audience: Various lampreys experts and enthusiasts from around the Pacific Northwest
- # of students: 30
- # of teachers: 5
- # of agency workers: 70
- # of general public: 0
- Comments: This presentation summarized morphological tail characteristics to properly identify and distinguish *Lampetra* spp. from Pacific Lamprey, as well as new genetic findings related to morphological variations in *Lampretra* spp. throughout the Columbia River Basin (genetics slides prepared by Steven Micheletti, CRITFC geneticist).



- Date: December 6, 2017
- Presentation Title: "Lamprey Predation Updates"
- Location: CRITFC Office (Portland, OR)
- Presenter: Ralph Lampman and Kelly Coates
- Audience: Various lampreys experts and enthusiasts from around the Pacific Northwest
- # of students: 30
- # of teachers: 5
- # of agency workers: 70
- # of general public: 0
- Comments: This presentation summarized recent studies on lamprey predation, focusing on larval lamprey predation. One example from Yakama Nation Fisheries summarizing the predation study using a variety of native and non-native predator fish species, and another example from Umpqua River summarizing the Smallmouth Bass predation study.



## 20. Lamprey Summit III (Once Every 5-Year Event)

- Date: December 6, 2017
- Presentation Title: "Larval/juvenile Lamprey Entrainment Updates"
- Location: CRITFC Office (Portland, OR)
- Presenter: Tyler Beals
- Audience: Various lampreys experts and enthusiasts from around the Pacific Northwest
- # of students: 30
- # of teachers: 5
- # of agency workers: 70
- # of general public: 0
- Comments: This presentation covered two topics; 1) a summary of a research project led by Matt Dunkle (University of Idaho), which focused on the ecological role of adult Pacific Lamprey carcasses, and 2) a summary of a research project led by Hiroaki Arakawa (Japanese Intern from Ishakawa Perfecture University), which focused on the predation potential of larval lampreys by native and non-native fish species in the Yakima Subbasin.



- Date: December 6, 2017
- Presentation Title: "Artificial Propagation & Lamprey Culture Where to Go from Here?"
- Location: CRITFC Office (Portland, OR)
- Presenter: Ralph Lampman
- Audience: Various lampreys experts and enthusiasts from around the Pacific Northwest
- # of students: 30
- # of teachers: 5
- # of agency workers: 70
- # of general public: 0

• Comments: This presentation summarized the final stages of the artificial propagation hatchery work from the past as well as the plans for the future.

- Date: December 7, 2017
- Presentation Title: "Pacific Lamprey Translocation"
- Location: CRITFC Office (Portland, OR)
- Presenter: Brian McIlraith
- Audience: Various lampreys experts and enthusiasts from around the Pacific Northwest
- # of students: 15
- # of teachers: 5
- # of agency workers: 40
- # of general public: 0
- Comments: This presentation summarized the adult translocation work conducted by the Columbia River member tribes.

## Media (Newspaper & Social Network Outreach)

- 1. Facebook "Luna the Lamprey"
  - Date: 1-1-2017 12-31-2017
  - Location: Website
  - Presenters: USFWS, Ralph Lampman
  - Audience: general public
  - # of general public: 1,827 followers
  - Comments: <u>https://m.facebook.com/PacificLamprey/?locale2=es\_LA</u> Submitted various posts and material throughout the year.



#### 2. Facebook – "Yakama Nation Fisheries"

- Date: 1-1-2017 12-31-2017
- Location: Website
- Presenters: Yakama Nation Fisheries
- Audience: general public
- # of general public: 1,674 followers
- Comments: <u>https://www.facebook.com/YakamaNationFisheries/</u> Submitted various posts and material throughout the year.



## 3. Tri-City Herald – "Public can watch lamprey released on Saturday in Prosser"

- Date: 4-5-2017
- Location: Newspaper & Website
- Presenters: Annette Cary (reporter), Ralph Lampman
- Audience: general public
- # of general public: 5,700
- Comments: <u>http://www.tri-cityherald.com/news/local/article142996919.html</u>. <u>https://www.facebook.com/TriCityHerald1/posts/1667019206648804</u>

Unfortunately, there are also negative media blogs that stem from these announcements,

such as what you see in the facebook posts as well as this one: http://keyw.com/creepy-

eel-like-creatures-to-be-released-in-the-yakima-river/



Public can watch lamprey released on Saturday in Prosser

## 4. Daily Sun News – "Tribe to release lampreys"

- Date: 4-6-2017
- Location: Newspaper & Website
- Presenters: Jennie McGhan (reporter), Ralph Lampman
- Audience: general public
- # of general public: 490 (3% of Sunnyside, WA)
- Comments: http://www.dailysunnews.com/news/2017/apr/06/tribe-release-lampreys/



Parking will be available at 505 W. Buena Vista Road and at Les Schwab, 310 Wine Country Road.

## 5. Tri-City Herald – "Learning to love the (Pacific) lamprey"

- Date: 4-8-2017
- Location: Newspaper & Website
- Presenters: Wendy Culverwell (reporter), YN staff
- Audience: general public
- # of general public: 5,700 (3% of Tri-Cities, WA)
- Comments: http://www.tri-cityherald.com/news/local/article143580769.html



Landon Bailey, 10, of Prosser, investigates a Pacific Lamprey released into a tiny channel leading to the Yakima River during a release event Saturday. The Yakama Nation Fisheries released about 50 adult lampreys in a move to bolster their numbers and educate the public about their cultural and ecological significance to the Pacific Northwest. **Wendy Culverwell** - Tri-City Herald

LOCAL

Learning to love the (Pacific) lamprey

BY WENDY CULVERWELL wculverwell@tricityherald.com

## 6. Daily Sun News - "Ancient Fish - Restoration event focuses on lamprey"

- Date: 4-10-2017
- Location: Newspaper & Website
- Presenters: Jennie McGhan (reporter), Ralph Lampman
- Audience: general public

SPECK

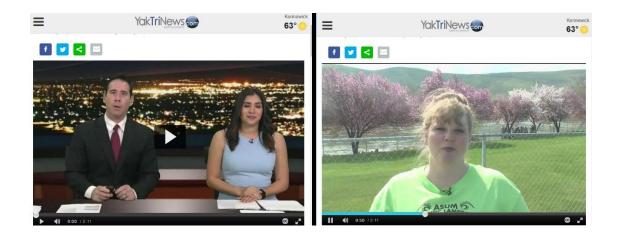
- # of general public: 490 (3% of Sunnyside, WA)
- Comments: http://www.dailysunnews.com/news/2017/apr/10/ancient-fish/







- 7. YakTriNews.com / KAPP, KVEW TV "Pacific Lamprey save local woman's life"
  - Date: 4-10-2017
  - Location: TV & Website
  - Presenters: Tori Cooper (reporter), April Hull
  - Audience: general public
  - # of general public: 8,400 (3% of Yakima/Tri-Cities, WA)
  - Comments: <u>https://www.yaktrinews.com/news/pacific-lamprey-save-local-yakima-womans-life/443366490</u>



- 8. Methow Valley News "Lampreys released in Methow Valley to help restore population"
  - Date: 4-24-2017
  - Location: Newspaper & Website
  - Presenters: Ann McCreary (reporter), Ralph Lampman
  - Audience: general public
  - # of general public: 180 (3% of Methow Valley, WA)
  - Comments: <u>http://methowvalleynews.com/2017/04/24/lampreys-released-in-methow-valley-to-help-restore-population/?utm\_source=FISHBIO+Fish+Report%3A+Droughts+and+Floods%3A+Calif\_ornia%27s+Climate+Change+Conundrum&utm\_campaign=FISHBIO+Fish+Report%3A
     +Fish+and+Money%3A+Consequences+of+Oroville+Dam&utm\_medium=email
    </u>

## Methow Valley News



## 9. Artificially propagated Arctic Lamprey larvae released in Noto, Ishikawa, Japan

- Date: 6-19-2017
- Location: Newspaper & Website
- Presenters: Ralph Lampman, Hiroaki Arakawa, Seiji Yanai
- Audience: general public
- # of general public: 35,000 (3% of Ishikawa Prefecture, Japan)
- Comments: <u>http://www.town.noto.lg.jp/www/info/detail.jsp?common\_id=11255</u> <u>http://eco.chunichi.co.jp/news/2017/06/004023.html</u>

https://enviromentalscience-ipu.tumblr.com/post/162533798398/20170703kawayatsume

https://www.facebook.com/permalink.php?story\_fbid=1183810631724124&id=8328795

26817238

#### See Appendix E1 for more information.



10. American Fisheries Society Science Blog – "Conservation efforts for an unlikely hero"

- Date: 8-21-2017
- Location: Website
- Presenters: Heather Wiedenhoft (reporter), Ralph Lampman
- Audience: agency workers and general public
- # of general public: 1,200 (3% of AFS members ~40,000)
- Comments: https://science.fisheries.org/conservation-efforts-for-an-unlikely-hero/

# 11. USFWS Pacific Region Tumblr Blog – "The #Filter that makes Pacific Lamprey pretty (in the eyes of biologists)"

- Date: 8-29-2017
- Location: Website
- Presenters: Julia Pinnix (reporter), Ralph Lampman
- Audience: agency workers and general public
- # of general public: 600 (3% of ~20,000)
- Comments: <u>http://usfwspacific.tumblr.com/post/164762968605/the-filter-that-makes-pacific-lamprey-pretty-in</u>

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## **FISHERIES SCIENCE BLOG**

HOME ABOUT PUBLICATIONS BOOKS BACKPAGE FISHERIES.ORG Q

CONSERVATION EFFORTS FOR AN UNLIKELY HERO



aren's cute and cuddity and may have been untainly villed in the past, but Pacific Lamprey are hoping to be the comeback kid of the Columbia River Basin

#### 12. Tribal Tribune – "CTFW releases lampreys at Okanogan, Similkameen rivers"

- Date: 9-8-2017
- Location: Newspaper & Website
- Presenters: Reporter Tribal Tribune
- Audience: general public, Colville Tribe members
- # of general public: 75 (3% of Bridgeport, WA)
- Comments: <u>http://www.tribaltribune.com/news/article\_dffa8930-94a2-11e7-bd52-77389d9aaded.html</u>



## 13. OPB - "The hidden world of Oregon's overlooked falls"

- Date: 11-2-2017
- Location: TV & Website
- Presenters: Ian McCluskey (reporter)
- Audience: general public
- # of general public: 40,000 (1% of Oregon population)
- Comments: <u>https://www.opb.org/television/programs/ofg/segment/oregon-willamette-falls-river-city-history-lamprey-salmon/</u>

