



COPPER RIVER WATERSHED PROJECT

COPPER RIVER

Runner

FALL 2023

CELEBRATING **25** GREAT YEARS

CELEBRATING OUR SILVER 25TH ANNIVERSARY

BY SHAE BOWMAN, *Operations & Special Programs Manager*

On September 2nd, the Copper River Watershed Project (CRWP) marked its 25th Anniversary with a memorable Art Gala Fundraiser. Over 100 guests gathered at the Cordova Center, where they enjoyed beverages and gourmet food prepared by the renowned Michelin Star Chef Cesar Figueroa and Sous Chef Lacey Figueroa. However, this celebration was more than just a party; it was a commemoration of a quarter-century of dedicated efforts to ensure the Copper River watershed thrives as a healthy and vibrant environment for humans, wildlife, and fish.

In the wake of the devastating Exxon-Valdez Oil spill, the communities along the Copper River watershed, both upstream and downstream, came together to rebuild their lives and safeguard the salmon that they cherish. This spirit of unity gave rise to our slogan: "Upriver and Down, Salmon are Common Ground." Whether you're a resident of the watershed, depend on it for your livelihood, or simply enjoy eating salmon, your life is intertwined with the fate of Copper River salmon.

In the early years of CRWP, we embarked on a collaborative endeavor with the Netherlands-based Artists for Nature Foundation. Together, we invited twenty-two artists to Cordova to explore the majestic Copper River Delta, the largest wetland on the Pacific Coast of North America. Their mission was to create artwork inspired by the region's breathtaking landscapes and diverse wildlife. As David Grimes eloquently stated during our celebration, "Art captures hearts and minds through the beauty of nature, but the true masterpiece is the Copper River itself – a living, breathing miracle that sustains us." This artistic journey resulted in a remarkable collection of works, giving birth to the exhibition and the book, "Alaska's Copper River Delta."

For nearly two decades, the majority of this artwork resided in the Netherlands with the Artists for Nature Foundation. To mark our 25th Anniversary, this art has returned home, thanks to a generous donation from the Artists for Nature Foundation. Some of these artworks were instrumental in helping CRWP raise funds to jumpstart fundraising efforts and launch us into the next 25 years.

Our goal for the next quarter-century is to have a barrier-free watershed. What does that mean? Sure, we want to remove physical barriers for salmon. But we also want to break down barriers for humans so that our communities can thrive in this vast



(Top): Kate Morse, Lisa Docken, and Todd Sherman call out bidders participating in the live auction.

(Lower): Kate Morse and Lisa Docken auction off Autumn Otter by Todd Sherman during the live auction.



landscape! We want to see communities continue to depend on salmon as a healthy source of food, live subsistence lifestyles, and flourish without depleting their natural resources.

While the tangible outcomes of our work might be a fancy new bridge on the Little Tonsina (the one that the National Director of the U.S. Fish and Wildlife Service visited this summer...) the true value of our work is being a bridge for YOU. Our mission statement says that CRWP "promotes a salmon-rich, intact watershed, and culturally diverse communities by forming partnerships..." Those are partnerships with organizations that hold the potential to make real impacts for the Copper River watershed. CRWP is a bridge to those entities to empower you to ensure that the watershed remains a thriving intact watershed that you can pass on to future generations.

How can you make sure that your values and priorities are represented in our planning for the next 25 years? Participate in our Strategic planning survey! You may choose to fill out the tear-out paper copy included in this newsletter and mail it back to us or complete the survey online. By completing the survey, you will also have the opportunity to be entered into a prize drawing for a \$500 Visa gift card. We value your feedback and look forward to hearing your thoughts on how we can continue to improve our work and build stronger bridges in the near and distant future.



LETTER FROM CRWP DIRECTOR

Dear Copper River watershed friends,

As we launch into the fall and winter season, the Copper River Watershed Project staff are riding the high after our 25th Anniversary Gala Fundraiser event that was on September 2nd. Nonprofit work can be challenging but there was nothing more moving than seeing an in-person gathering of our supporters celebrating with us. I was moved to see smiling faces, clinking glasses and feeling the energy and laughter in the room.

This is a thank you to our watershed community whether you live in the watershed or support us from afar, you are all a part of something special. I've been in this job for 4 years this Fall. It wasn't barely 4 months into the job when the pandemic hit and I was wide-eyed and thrown into uncharted waters, like we all were. Now, after that time being 'in isolation', I'm behind on in-person connection and the proper facetime to tell each and every one of you how much we appreciate you. When I took a pause at this event and looked around the room, I was close to tears with the feeling of community and hope for the future of this world-renowned watershed. I have this hope because it's backed by the people around me, the people connecting online, the numerous volunteers and interns, our incredibly talented and hardworking CRWP staff and all those that feel connected to the Copper River. You are all strong, passionate and loving. Thank you.

While celebrating the last 25 years serving the region, we look forward to the next 25 years. Building on the trailblazing of those that have worked so hard to get us here, the Copper River Watershed Project will spend the next 5 years implementing some of the largest projects with the greatest impacts we will have achieved to date. Building bridges, stream-simulation design culverts and replacing the Eyak Lake weir are at the top of that list. But it's more than legacy infrastructure supporting salmon and our aquatic resources; we plan to bring additional training opportunities, increase staffing across the watershed through our partnerships and work to ensure this once-in-a-lifetime BIL funding reaches those that need it most and where the benefits outlast the window of grant funding. These are good times for great work and we are listening. So if you haven't already, fill out this survey and help us target our efforts for the greatest good.

Lisa Docken



At the Wild Food Feast in the Copper Basin this last September, we got to celebrate our 25th anniversary with this incredible fish passage cake designed and created by Chef Sarah Nelson with Cast Iron Cafe. What a creation, thank you Chef Sarah! From left to right; Kate Morse; CRWP Program Director, chef Sarah Nelson, Colleen Merrick; CRWP/CRNA staff, Lishaw Lincoln; CRWP Board Member.

**FILL OUT THIS SURVEY AND
HELP US TARGET OUR EFFORTS!**



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Colleen Merrick, *CRWP/CRNA Climate Change Coordinator*

A SPECIAL VISIT at the LITTLE TONSINA BRIDGE

ASHLEY TAYLOR, WATERSHED RESTORATION & GIS STAFF

Prioritization of fish passage projects leads to improvement of the crossing with the highest value to fisheries in the ENTIRE Copper River region, and a special visitor!

Besides the spawning Coho and King Salmon who can now freely access over 70 miles of upstream habitat on the Little Tonsina River, a tributary that flows into the Tonsina River and then the Copper River, the newly completed Little Tonsina Bridge had another special visitor this year: the National Director of the U.S. Fish and Wildlife Service, Martha Williams.

The Little Tonsina Bridge Project has the distinction of being the first U.S. Fish and Wildlife Service (USFWS) Bipartisan Infrastructure Law- funded fish passage project to break ground in the USA. This drew attention at the national level and Director Williams and her team scheduled a site visit with CRWP and partners at the end of July.

A warm bluebird day welcomed partners from Alaska Department of Fish & Game,

Chugach Alaska Corporation, Copper River Native Association, Tazlina Village, USFWS, and CRWP Staff and Board Members to the project site. We shared a meal, thoughts on successful partnerships, and design considerations for road-stream crossings that have fish and flood resiliency in mind. Replacing the two undersized culverts there with a bridge designed to span at least two times the bankfull channel width keeps this high-priority spawning and rearing habitat flowing free.

As our USFWS partners say, “conservation is a team sport.” The completion of the multimillion dollar Little Tonsina Bridge included a land transfer and right of way agreement from the Chugach Alaska Corporation (CAC), and consistent communication and input from over 45 individuals at project partner organizations since the inception of the project in 2017.

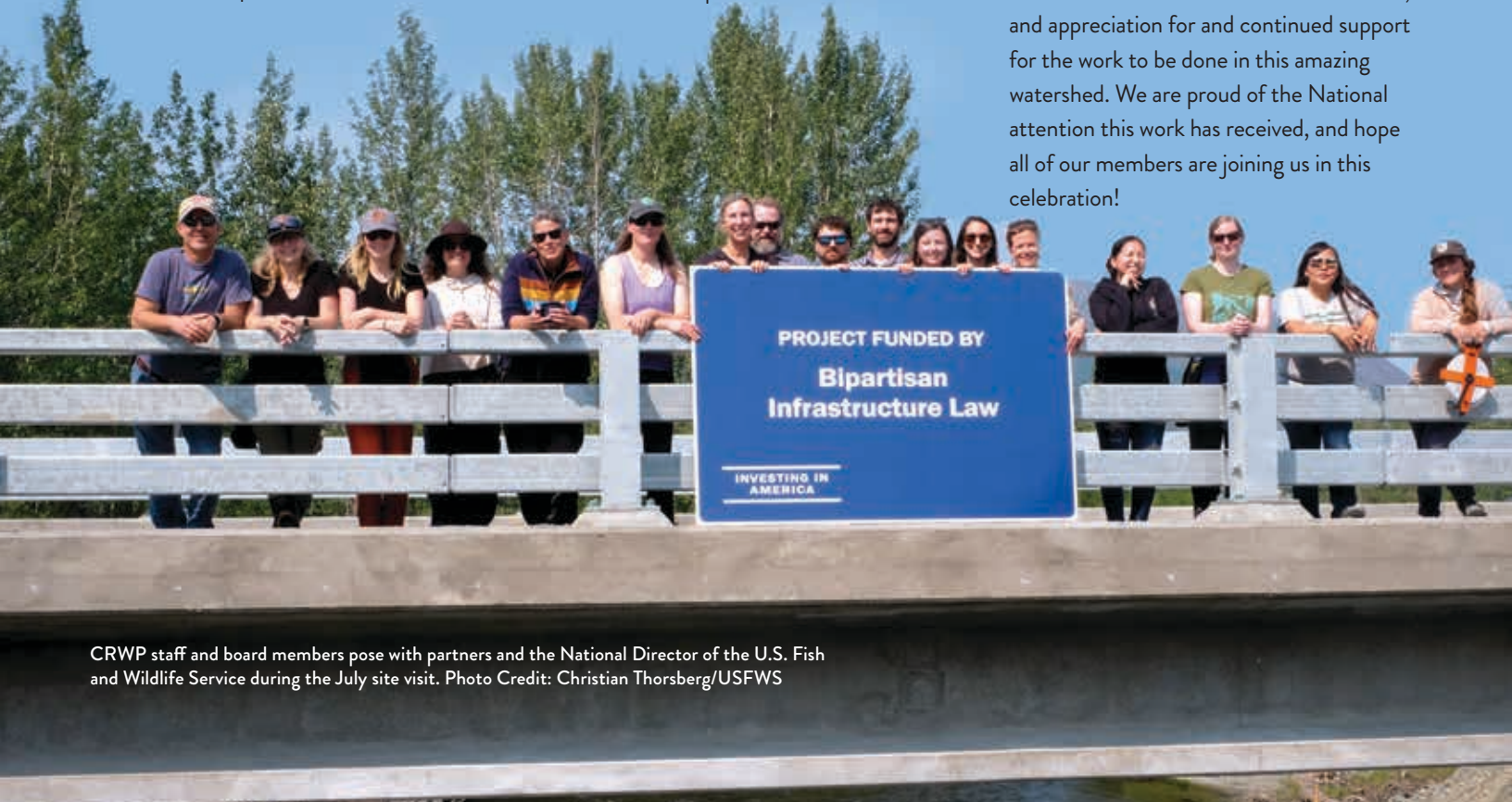
Now that vehicles can drive over the Little Tonsina, and King Salmon and one of the furthest upstream distributions of



Vegetation starts to regrow at the recently completed Little Tonsina Bridge.

spawning Coho Salmon can access upstream habitat, we pause to celebrate this success. However, the work is not done and barriers still exist, and we are actively working towards the removal of nineteen more barriers, including Dry Creek crossing at MP 117 on the Richardson Highway.

We were sure to show Director Williams this high priority site before she left the Copper Basin. And see it she did--she walked through the undersized, mis-aligned pipe conveying Dry Creek under the Richardson, experiencing it from the inside and leaving with a memorable experience of restoration success on the Little Tonsina, and appreciation for and continued support for the work to be done in this amazing watershed. We are proud of the National attention this work has received, and hope all of our members are joining us in this celebration!



CRWP staff and board members pose with partners and the National Director of the U.S. Fish and Wildlife Service during the July site visit. Photo Credit: Christian Thorsberg/USFWS

COPPER RIVER YOUTH FIGHT INVASIVE PLANTS FOR FOOD SECURITY AND CLIMATE RESILIENCE

COLLEEN MERRICK, CRWP/CRNA CLIMATE CHANGE COORDINATOR

Copper River Valley, Alaska - This summer, the Copper River Watershed Project and the Copper River Native Association (CRNA) joined forces to tackle the threat of White Sweet Clover (WSC), an invasive plant wreaking havoc in the region. But this mission isn't just about protecting the environment; it's closely tied to food sovereignty and food security, making it a crucial initiative supervised by the Climate Change Coordinator. This important work was made possible by BLM and Copper Country Alliance. Without these supportive relationships, a holistic approach to conservation would not be possible.

The Copper River Basin's Regional Climate Change Adaptation Plan, a collaborative effort, has identified education, food security, and emergency preparedness as top priorities. Invasive plants like WSC pose a significant challenge to these goals. They can divert pollinators away from native plants, including fireweed and our beloved berries. Furthermore, WSC can suffocate native flora along waterways, which in turn disrupts a delicate habitat, harming both juvenile and spawning salmon.

In a region where salmon constitutes approximately 50% of the subsistence harvest, safeguarding these vital fish is paramount. Invasive species like WSC may seem innocuous, but they silently threaten our livelihoods.

The Climate Change Coordinator also oversees the Youth Engagement and Training Initiative (YETI). This program's mission is to introduce teenagers to the world of work, expose them to potential career paths, offer mentorship, and set them on a path to



(Left) YETI Group manually removing WSC along the banks of the Gakona River.

(Right) The YETI Group pulled and burned a large patch of WSC from a sandbar on the Klutina River.

Photos by: Michelle McAfee/CRWP

success within their community and beyond. The summer of 2023 was all about showing these YETIs the potential of green collar jobs.

The YETIs were fortunate to engage in various activities throughout the summer, including planting and tending the community garden, propagating local berry patches, visiting fish passage sites to learn about identifying juvenile salmon and their habitat, bioremediation projects, and, of course, battling invasive plants like WSC.

This collaborative effort not only addresses the pressing issue of invasive species management but also promotes youth engagement and fosters an understanding of the critical connection between climate resilience and food security. By involving teenagers in hands-on conservation work, the initiative nurtures a new generation of environmental stewards dedicated to preserving the natural beauty and resources of the Copper River region.

In the face of climate change and its implications for food security, the Copper River Valley is setting an inspiring example of community-driven action. As these young conservationists take on invasive plants, they are also sowing the seeds of a sustainable and resilient future for their communities.



Fireweed along the Klutina River where the YETI Group worked to remove WSC. Photo by: YETI Group

Pulling White Sweet Clover along the Gakona River with the YETIs. Photo by: YETI Group



EXPANDING STREAM TEMPERATURE MONITORING

BY KATE MORSE, PROGRAM DIRECTOR

Each year students throughout the watershed monitor the temperature of their classroom salmon tank, enabling them to predict when salmon will transition between life stages, for example, when their eggs will hatch into alevin. This is because the physiological changes salmon undergo can be directly tied to stream temperature. Water temperatures may also influence growth, development, metabolism, and ecological interactions such as predation, competition, or disease, which affect survival and population levels.

Water temperature can vary from stream to stream, for example some streams are fed by snowfall and rain and are more easily influenced by the air temperature. These streams can get warmer in the summer and freeze in the winter. Other streams are influenced by groundwater and maintain a more constant temperature year-round. Scientists have found that differences in thermal regimes have led to genetic differences between coho on the Copper River Delta, and Sockeye salmon throughout the Copper River watershed. As stream temperatures respond to changes in the climate, this genetic variance is going to be important to the long-term sustainability of Copper River salmon, as some stocks of salmon are going to be better prepared for adapting to changing stream temperatures, and others will be more at risk.

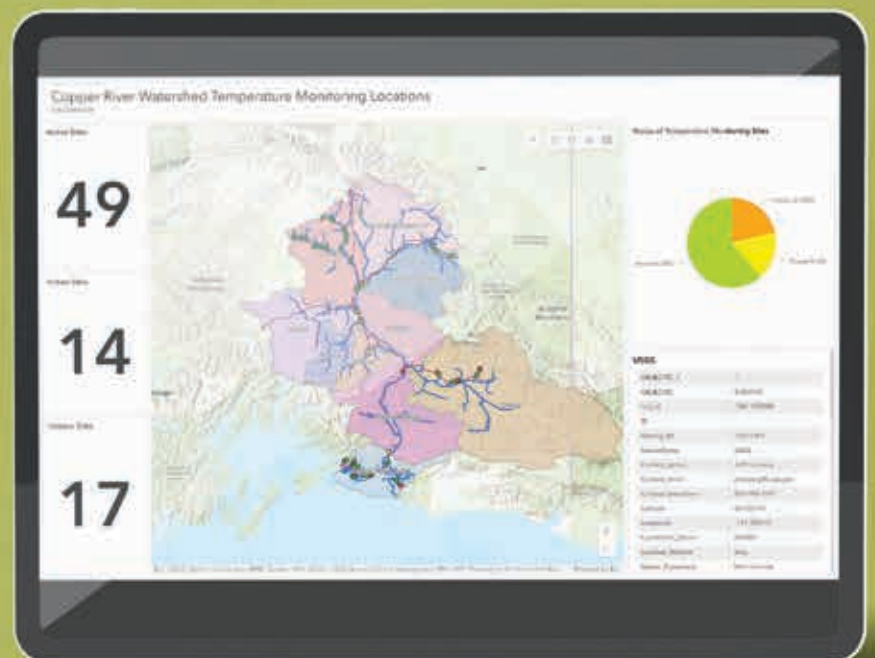
CRWP and our partners are taking temperature monitoring to a watershed-level, coordinating stream temperature monitoring efforts to ensure temperature data is being collected consistently, and to identify areas where additional monitoring can fill important data gaps. In partnership with Ahtna Intertribal Resource Commission, CRWP was able to deploy loggers at over 20 additional sites this field season, targeting data poor areas, as well as long-term sites monitored by environmental coordinators from Alaska Native Villages throughout the watershed.

These efforts complement temperature monitoring work led by the National Park Service, U.S. Forest Service, Bureau of Land Management, and U.S. Fish and Wildlife Service, and all data will be available via University of Alaska's AKTEMP Water Temperature Database. By coordinating temperature monitoring throughout the watershed, we can better understand and predict how water temperature varies over time across diverse landscapes. We can also identify vital thermal habitats allowing resource managers to detect "at risk" stocks so we can work to maintain the diversity of salmon within the Copper River watershed.

A screenshot of the mapper developed by GIS Specialist Ashley Taylor to help collect information about historic and current stream temp records and to identify new sites for deploying additional loggers.



Students from Mentasta Lake Katie John School helped to deploy temperature loggers in Fish Creek near their school in the headwaters of the Copper River watershed.



Want to get fancy? Below is a recipe created by Chef Cesar Figueroa. It was served as one of the amuse-bouche bites at our 25th Anniversary Fundraiser Gala. Chef Cesar would say that salmon is so wonderful because it is so versatile. It can be prepared for quick and easy cooking and enjoyment, or dressed to impress with luxury touches. The options are endless when it comes to preparing salmon. So here is another fun and fancy way to celebrate eating Copper River salmon from a watershed that we all love and cherish.



Want to purchase sustainably-sourced wild Copper River salmon while also supporting salmon habitat restoration? Use this QR code and purchase salmon from Sena Sea. The CRWP receives 8% of the proceeds from sales when you make your purchase through this affiliate link. Happy cooking and cheers to the versatile and beautiful salmon whichever way you prepare it! *And thank you Cesar Figueroa for sharing your gourmet salmon inspiration with us!*

SALMON TARTAR

with pine needle sour cream & rosemary ash

Dough

1 large russet potato
½ cup corn starch
¼ cup potato water from boiling
1 tsp kosher salt
1 tsp garlic powder
parchment paper

Pine Needle Crema

1 cup fresh pine needles
1 ½ cup neutral oil (canola)
2 cups sour cream
zest of 1 lemon
1 tbsp kosher salt, or to taste

Salmon

8 oz fresh salmon
1-2 tbsp neutral oil
2 sheets of dried kombu leaves
(can substitute with nori)
salt to taste

Garnish (optional)

Fried parsley leaves
Togarashi seasoning

Note: 1 large russet potato should yield about 8 ounces once boiled and mashed. If yield is more than 8 ounces, you may need to add more corn starch. ½ cup of corn starch is needed for every 8 ounces of boiled potato.



Recipe by Cesar Figueroa

Dough

1. Peel, cube, and boil potato in water with a pinch of salt until it is soft enough to puncture with a fork.
2. Strain potato from water (reserve water and set aside). Mash potato and add in corn starch, salt, pepper, and garlic while mashing and mash until there are no clumps present.
3. Knead in dry ingredients until well incorporated and a dough ball is formed. If dough is dry and crumbly during kneading, add a 1 tbsp of water at a time until a pliable dough is formed (think playdough).
4. Lay out parchment paper and sprinkle with corn starch. Place dough ball down on parchment, adding another sheet of parchment paper on top. Roll out dough until 1/8" thick, rolling evenly. Place dough on a sheet pan lined with parchment in fridge for 10-15 minutes to rest.
5. Cut ~30 circles using pastry cutter (1 ½ - 3 inch works best). Arrange pre-cut dough pieces on sheet pan lined with parchment. Place sheet pan in freezer for at least 20-30 minutes, overnight if desired. Dough freezes and stores well.
6. Bring a neutral frying oil to 375 degrees.
7. Fry dough, rotating and flipping until golden brown.

Pine Needle Crema

1. Make a pine needle infused oil by blending fresh pine needles with oil until needles are completely broken down.
2. Transfer blender contents to a pot and bring unstrained oil to 150 degrees over medium heat.
3. After oil reaches 150 degrees, strain oil through cheesecloth or fine sieve (coffee filters also work well). Let oil come to room temperature.
4. Fold pine needle oil into sour cream, adding lemon zest and salt. Reserve and set aside in the fridge.

Salmon

1. Roughly dice fresh salmon and layer with dried kombu leaves. Kombu should be layered on the top and bottom. Let cure overnight, up to 24 hours.
2. The next day, remove leaves and work in 1-2 tbsp of oil, salt to taste.

Assemble a spoonful of salmon on potato chip, pipe or spoon on pine needle crema (2:1 ratio of salmon to crema), and garnish with fried parsley leaves and Togarashi! Makes approximately 30 bites.

CLASSROOM CURRENTS

GROWING STEWARDSHIP

BY KATE MORSE, PROGRAM DIRECTOR

While gray hair and achy joints are the less glamorous signs of getting older, I am excited to report on the continued engagement of youth I've had the honor of knowing since they were small fry. Working for CRWP for 15 years, and before that for the Science Center for five years, I've had the chance to engage with students in their elementary years, most often through classroom salmon tanks and other fishy activities, and then continue to connect with them throughout their schooling as they migrate to post-secondary education and return home to spawn creative ideas and engage in active stewardship of the watershed.

This summer two former students were on the payroll with CRWP, helping to control the spread of invasive plants in Cordova. Serena Herschleb, a sophomore at Western Washington University was hired as our summer technician, and she mentored our stewardship intern, current high school junior Samaya Faber. Both young women have been involved in numerous school programs with CRWP and were former participants on the Copper River Stewardship Program.

This summer they brought their creative ideas to help educate and connect with residents in Cordova and visited every known site of invasive weeds in Cordova to remove seed heads and prevent the expansion of these infestations. They also gained new skills, including using ESRI's Survey 123 to enter and manage field data, designing outreach materials to maximize their educational benefit, and engaging youth in hands-on education activities.

CRWP continues to identify ways to engage with youth as they grow up in the region, keeping them connected to the greater watershed community they are a part of and empowering them to realize their ability to make a positive difference in their community. Most of these watershed education initiatives are supported by individual contributions from members like you. This holiday season, consider "adopting fry" in honor of your loved ones using the QR code below. Your gift will keep giving as it is invested in watershed education activities for youth throughout the region, including salmon tanks, field trips in chest waders, field-based adventures in the watershed, and through high school internship programming. Your investment today will support a healthy watershed and engaged, empowered youth tomorrow.

ADOPT-A-FRY



(Right) Samaya clips the seed head from Reed Canarygrass, a highly invasive plant found in Cordova, to prevent it from spreading.

(Below top) Serena continued to fine-tune her skills measuring fish as part of her internship with the Community Coastal Experience in June 2023.

(Below bottom) Serena (with bucket) and other members of her Girl Scout troop help document fish species as part of Salmon Blitz, a citizen science program intended to add additional data to the Anadromous Waters Catalog.



From salmon blitz, to the stewardship program, to my current job as an invasive plant technician, I have grown up learning about my surrounding environment with CRWP. These programs have inspired my interest in the sciences and allowed me to take part in preserving the ecosystem that has raised me. The educators at CRWP will always be some of the people I look up to most."

-Serena Herschleb

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FALL 2023

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TO



WHY I SUPPORT CRWP



NELLY HAND

CRWP VICE PRESIDENT &
OWNER OF DRIFTERS FISH

As a community member of Cordova and a commercial fisherman, the Copper River Delta is my home and my livelihood. I became involved as a board member to support the valuable mission of a healthy future for the watershed and further connect with the projects in the works to do so.

My partner Michael and I have been supporting the Watershed Project through our business Drifters Fish for several years, donating a portion of our sales to further the good work for a vibrant, wild river system and healthy habitat for salmon.

Sharing the efforts of the Watershed Project with our customers is important to me so they can connect where their food is coming from and the significance of stewardship for the wild place that nurtures these delicious, incredible wild salmon to return year after year.

Drifters
Fish