



## COPPER RIVER WATERSHED PROJECT

COPPER RIVER

# Runner

SPRING 2015



## THIRTY-FOUR MILES AND COUNTING

BY KATE MORSE, PROGRAM DIRECTOR

*Since 2009, over 200 volunteers from ages 7 to 70+ helped with Salmon Blitz surveys and generated over 34 miles of habitat nominations for the State of Alaska's Anadromous Waters Catalog (AWC).*

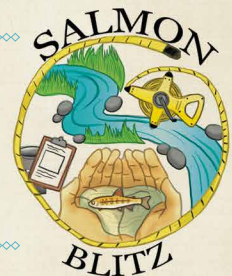
This catalog is the Alaska Department of Fish & Game's (ADF&G) primary tool for tracking all known bodies of water used by salmon, trout, and other anadromous species for spawning, migrating, and rearing. Waters listed in the AWC receive extra regulatory protection in the face of future development and pollution and help resource managers see the bigger picture of vital salmon habitat locations. ([www.adfg.alaska.gov/sf/SARR/AWC/](http://www.adfg.alaska.gov/sf/SARR/AWC/))

Of the 35,600 miles of streams and rivers in the Copper River watershed, the AWC identified only 2,168 miles (6%) as supporting salmon and/or trout (2012). ADF&G estimates that statewide about 50% of salmon habitat is not currently listed in the catalog, creating the opportunity for Salmon Blitz volunteers to help out! Improving our understanding of where salmon are spawning and rearing can help us protect these key habitats for sustaining healthy populations into the future.

Girl scout troops, biology classes, fishermen, lawyers, moms, dads, and teachers took to the field armed with minnow traps, GPS units, waterproof cameras, datasheets, and other tools for assessing water quality to help conduct habitat surveys. They rafted rivers, bushwhacked through dense shrubs, and even climbed high bluffs in chest waders, all in search of undocumented fish habitat. Volunteers caught a total of ten types of fish, including sockeye, Chinook and coho salmon, cutthroat trout, Dolly Varden, Arctic grayling, longnose suckers, burbot, stickleback, and sculpin. And they generated quality data that was submitted to and accepted by the State of Alaska into the AWC.

We identified over 14 miles of *new* stream data. We nominated almost eight stream miles for *additional* species, and updated over 12 miles of stream from listing species as "present" to designating whether there were adult fish spawning and/or juvenile fish seeking food and shelter, or rearing. And in all cases, we had a lot of fun!

Salmon Blitz surveys will continue through 2016, so contact CRWP and learn how you can join our efforts and Salmon Blitz on!



### CRWP MISSION

*To foster the health of the Copper River watershed's salmon-based cultures, communities, and economies.*

## LETTER FROM THE EXECUTIVE DIRECTOR

We've included our 2014 annual report in this newsletter issue, and you, our members, will see how your contributions have made a difference in helping the CRWP to grow and thrive. But here's my favorite example for how much you help us, for how your gifts help move our work from "what if?" or "how could we?" to taking action.

Back in December, I was reading the peer reviewers' comments on a grant application we had submitted in July 2014 (*yes, most often it takes six months from when an application is submitted to when we hear "yay" or "nay"*). I pointed out one sentence to our board chair, Molly, who was in the office that day, that really stood out to me. Under "Technical Merit Comments," a reviewer wrote "the system used to prioritize culverts for replacement is exemplary"!

We had submitted a project proposal to restore fish passage at a road crossing by replacing the top-ranked culvert on the Copper River Highway. The system we used to generate a score for that culvert was begun in 2008 by then-employee Becky Clausen. Becky developed the initial outline of the scoring protocol, and then Kate Morse, our current Program Director, picked up the thread. Kate worked with local hydrologist and fish biologist Kirsti Jurica and developed the protocol over the next several years, carefully, patiently integrating feedback from state and federal agencies, making tweaks and improvements, and also guiding development of an on-line interactive culvert mapper database (*visit at [www.crks.org/CRWP\\_CulvertMapper/](http://www.crks.org/CRWP_CulvertMapper/)*).

But Becky and Kate's initial work wasn't funded by a grant. It was funded by you! All those \$25, \$50, \$250 and \$1,000+ contributions add up over time, and they make it possible for us to explore ideas,



do some initial research and consult with agency partners. Eventually we develop an idea to the point that it's ready to submit to an agency or foundation in the form of a detailed proposal with a work plan that outlines action steps and a specific budget.

And your investments pay off: in December, 2014 we were awarded \$173,000 to replace the Copper River Highway culvert that will have the greatest benefit for coho salmon and cutthroat trout, and we were also able to leverage an additional \$50,000 from the Alaska Department of Fish and Game and \$60,000 from the Alaska Department of Transportation & Public Facilities to help with engineering costs and purchasing a new culvert. We plan to replace many more over the next several years, now that we have this "exemplary" ranking system, so your contributions will be paying dividends for a while!

*With deep appreciation for your confidence in our work,*

*Kristin Carpenter*

Kristin Carpenter, Executive Director

### CRWP STAFF

Kristin Carpenter, Executive Director  
Kate Morse, Program Director  
Danielle Verna, Invasive Weeds Program Manager  
Don Hofstetter, Invasive Weeds Coordinator/Copper Basin  
Shae Bowman, AmeriCorps Volunteer

### CRWP BOARD OF DIRECTORS

Molly Mulvaney, Board Chair, Cordova  
Brad Reynolds, Secretary, Cordova  
Alexis Cooper, Cordova  
Mark Johns, Copper Center

Ruby Oatman, Gakona  
Robin Underwood, Kenny Lake  
Maria Wessel, Cordova  
Copper Basin Open Seats (1)

# CLASSROOM CURRENTS

“NOT THE CRY, BUT THE FLIGHT, OF A WILD DUCK LEADS THE FLOCK TO FLY AND FOLLOW.” – CHINESE PROVERB

I like how this proverb hits at the core of how to inspire change in the people around you. Put less eloquently, we need to lead by example. Since graduating from college I have spent much of my professional life working to inspire, empower, educate, and motivate learners of all ages through outdoor adventures. Through these experiences I have observed “doing” is always more effective than “telling.”

One action I’ve been hoping to inspire in others is doing what we can as individuals to improve the quality of rainwater that runs over our streets, driveways, sidewalks and into our local waterways. This stormwater can pick up debris, chemicals, dirt, and other pollutants that can affect fish and wildlife habitat, drinking water, and human health. Contrary to common understanding, once stormwater enters the stormdrain systems it typically heads directly into local waterways--in most places it does not get treated like wastewater from our homes.

To help reduce stormwater pollution in Cordova, I have made a commitment to pick up garbage that I walk or drive past, especially plastic bags, Styrofoam, and recyclable aluminum cans. I always carry a reusable coffee mug, water bottle or grocery bag. We have moved the fuel tank at our house to a more stable, accessible location (so falling snow and ice from the roof won’t damage it) and keep our vehicles maintained so they do not leak fluids.

I agree, it can be hard to believe that one person on such a crowded planet can really have an impact. We probably also agree that the *Exxon Valdez* oil spill that spilled a minimum of 11 million gallons of crude oil into Prince William Sound was a tragic environmental disaster. But, did you know that the EPA estimates that American households improperly dump about 193 million gallons of used oil every year, or roughly equivalent to 17 *Exxon Valdez* oil spills?

If individual actions can add up to an equivalent of 17 oil spills, I believe our individual actions can add up to something positive. Recycling one aluminum can saves enough energy to run your computer for 4.5 hours. Turning off the water while brushing your teeth can save 1.5 gallon/minute. Properly disposing of used oil and maintaining boats, vehicles, and home fuel tanks can stop us from repeating oil pollution in levels equal to 17 *Exxon Valdez* oil spills on an annual basis.

And most importantly, by stepping up and leading by example, we can inspire others to do the same. And those people can inspire others, who can in turn inspire others, who in turn can inspire others...you get the point, right? So I now ask what are you willing to commit to do in your own life or community to reduce your negative impact on the natural resources that sustain us? Who knows, you might just inspire a movement.




“Like” Copper River Watershed Project on Facebook so you don’t miss out on the weekly **Throw Away Thursday** posts that feature stormwater debris we collect, and please share your own stormwater pollution reduction actions with us!



# INVASIVE ELODEA

## IN CORDOVA & ON THE COPPER RIVER DELTA



*Elodea* sp., or waterweed, is a freshwater, submerged aquatic plant sold widely in the aquarium trade and commonly used in science classrooms. Although native to North America ranging into southern portions of British Columbia, *Elodea* is not native to Alaska and is considered an invasive species.

The first record of *Elodea* in Alaska came from Eyak Lake in Cordova in 1982, thought to have been introduced from an aquarium dump. At the time the infestation was contained to an isolated area near Mavis Island. Since then, *Elodea* has spread onto the Copper River delta and is currently known to be infesting McKinley Lake, Wooded Pond, Wrong Way Pond, Martin Lake, Bering Lake, and several small ponds and sloughs neighboring Eyak River and Alaganik Slough. *Elodea* has also been found throughout Alaska in Fairbanks, Anchorage, on the Kenai Peninsula, and the Mat-Su Borough.

In an effort to prevent further introduction and spread, the Alaska Department of Natural Resources established a quarantine for five aquatic invasive plants in March 2014, including two species of *Elodea* (*Elodea canadensis* and *Elodea nuttallii*). The quarantine prohibits importing, transporting, buying, selling, offering for sale, distributing, or intentionally transplanting the listed plants or plant parts within Alaska.

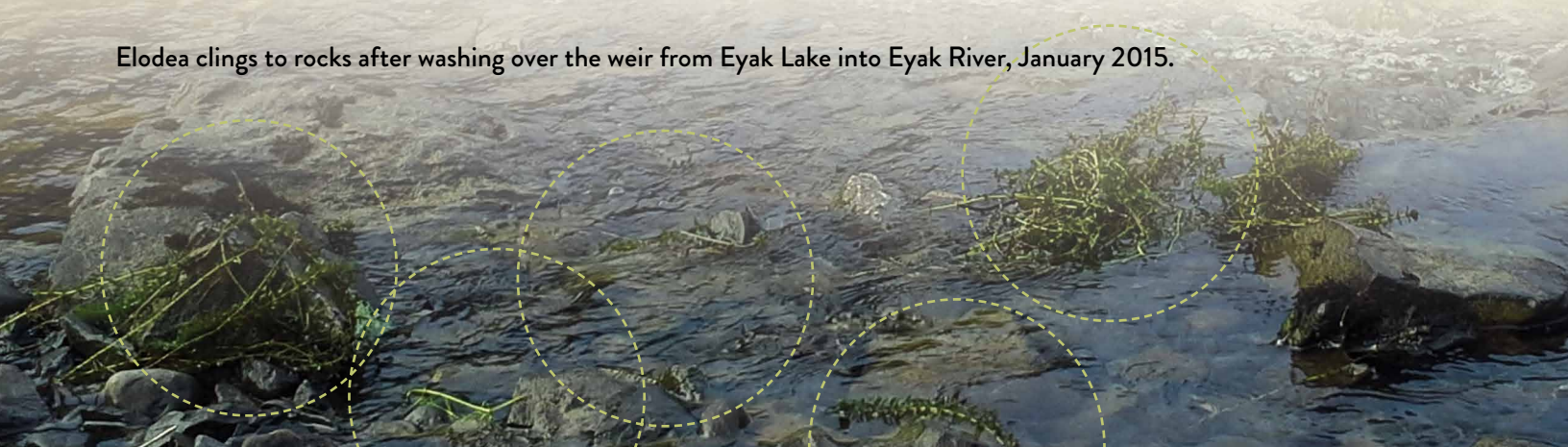
A variety of treatment strategies have also been tried against infestations in Alaska. In 2013, the Fairbanks Soil and Water Conservation District tested the use of a suction dredge to remove *Elodea* from Chena Slough. Suction dredging was found to be time-consuming and labor intensive, and unfortunately largely ineffective. Approximately \$60,000 was spent on labor and initial

equipment costs to remove *Elodea* from a little more than half an acre (0.59 acres) over a period of one-and-a-half months (for reference, Eyak Lake covers 2,400 acres). A major drawback to any type of mechanical control method, such as suction dredging, pulling, tarping, and raking, is the risk of breaking plants into fragments that can easily spread and reproduce if not entirely collected. During the summer of 2014, an *Elodea* eradication project began on the Kenai Peninsula that includes use of chemical control as part of an integrated management plan. In June and July, partners from the Kenai Peninsula Cooperative Weed Management Area applied fluridone, a selective systemic herbicide, to three infested lakes (*Stormy, Beck, and Daniels*). In addition, diquat, a nonselective contact herbicide, was applied in Daniels Lake. A survey of the lakes conducted a few months after application showed a decrease in *Elodea*. Herbicide applications are scheduled to continue in 2015 and 2016.

To tackle the problem of *Elodea* in Eyak Lake and on the Copper River delta, the Copper River Watershed Project hosted a two day meeting and workshop in Cordova on March 3 & 4, 2015. Roughly 30 people, including agency stakeholders from around the state and local Cordovans, came together to discuss how we should manage this aquatic nuisance in our backyard. There are unique challenges to managing *Elodea* in remote areas such as the delta, and the infestation in Eyak Lake is the most established in the state. However, the risks of doing nothing were considered against the long-term threat posed to fisheries habitat and other resources. These factors and others will be taken into account as we develop a localized management plan for *Elodea*.

Given the high volume of floatplane activity and recreational boating in Alaska, there is high potential for fragments of *Elodea* to spread and become established in new waterbodies. Prevention and education, as with all invasive species management, are the keys to success. What can you do to stop the invasion?

**Elodea clings to rocks after washing over the weir from Eyak Lake into Eyak River, January 2015.**





LETTER FROM BOARD CHAIR

## REFLECTING ON 2014



Molly assisted with Salmon Blitz habitat surveys and helped to identify coho salmon living in an undocumented stream near Cordova.

The last few winters my family and I have spent some time in San Diego. We're here now as I write this. I just came back from a walk along a nearby estuary where I watched shorebirds feed. It occurred to me that some of these same shorebirds will fly north in a few months making landfall on the Copper River watershed before continuing their migration. A quick text to a biologist friend in Cordova confirmed my suspicion that I may indeed see these same birds come Spring, resting and feeding on the Copper River delta. Wow, that's a lot of miles and in fall they will fly a similar route south again.

While the Copper River watershed's range isn't as large as a shorebird's, it is impressive. If it were a separate state it would be the 41st largest,

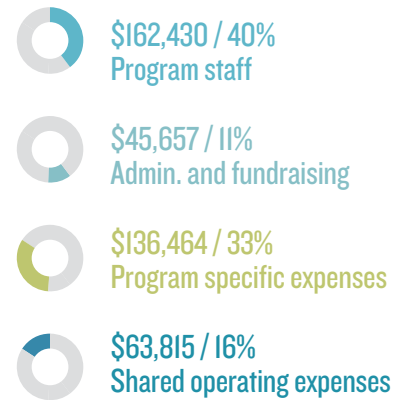
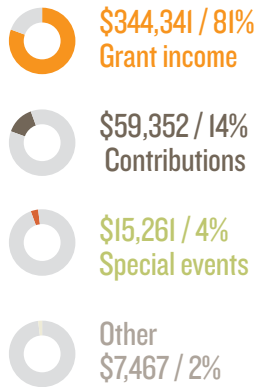
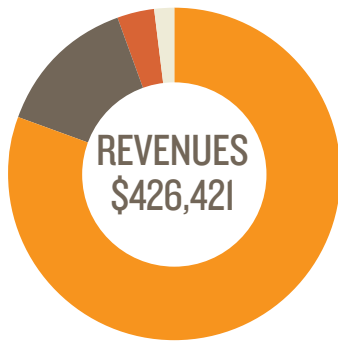
bigger than West Virginia - nearly the size of South Carolina. At 26,500 square miles, the watershed is bigger than Maryland, Massachusetts and Connecticut combined. The River itself is the 10th largest in the U.S. when ranked by average discharge volume at its mouth. And those shorebirds, when they land in the watershed, are landing in the largest contiguous wetland along the Pacific coast of North America.

While I have been on the CRWP's board for five years it still boggles my mind when I think about how big the watershed is. And then I think of all the projects that come out of the CRWP's office year after year, like culvert prioritization and replacement; surveying and cataloguing salmon streams in the watershed for inclusion in the statewide database; removing a hundred year old collapsed railroad trestle that almost entirely closed off a salmon stream; involving the public, including students and schools, in activities that model responsible stewardship of this area; invasive plant management; collaborating and coordinating with other agencies on related projects; grantwriting; fundraising; and of course the daily ins and outs of running an office. As I said, it's impressive and I think it rivals, in its own way, what those flocks of shorebirds accomplish every year.

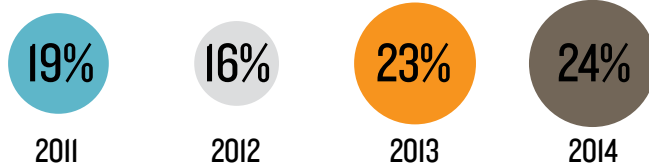
I am happy to be a small part of this organization that works so hard for the salmon-based communities, cultures, and economies of this vast area. I am grateful the CRWP insists on having a board comprised of upriver and downriver inhabitants. While that means we conduct most meetings over conference calls and only once a year meet all together in person, it is one more way the CRWP manages to build and maintain the connections that further support this vast, impressive watershed, all 26,500 square miles of it.

Molly Mulvaney, Board President

# 2014 ANNUAL REPORT

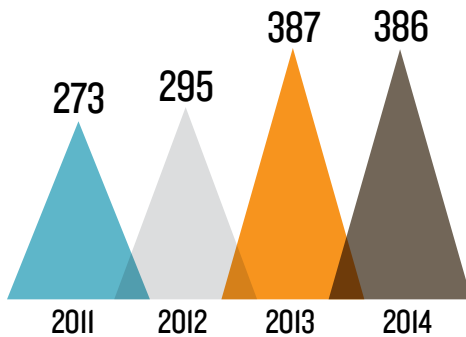


DOES CRWP HAVE MORE THAN 25% OF ITS ANNUAL CORE BUDGET (staff + shared operating expenses) IN FINANCIAL ASSETS?



## MISSION RESULTS

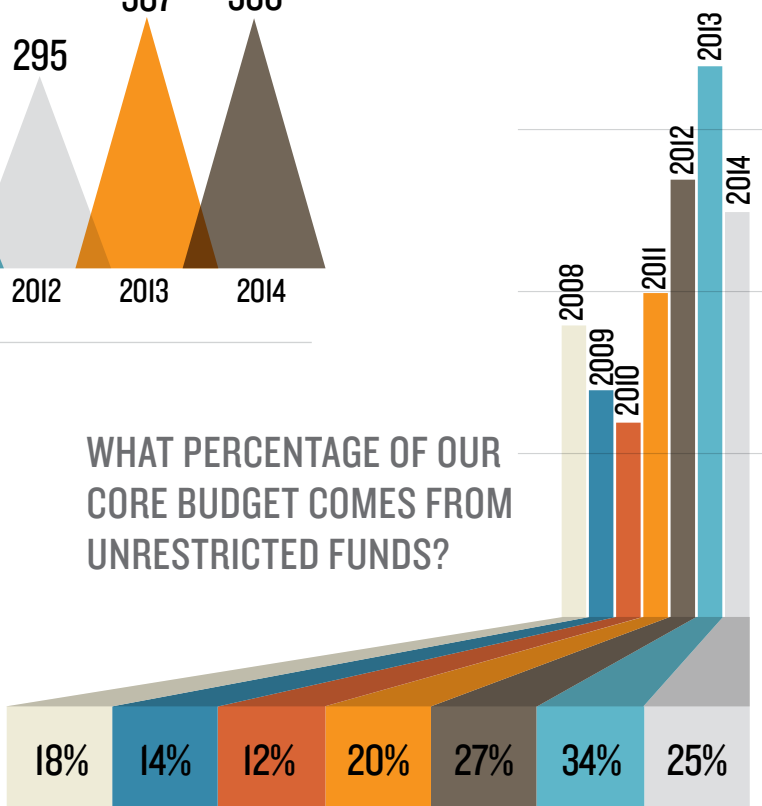
IS OUR MEMBERSHIP GROWING?



## 2014 FUNDERS

- Alaska Association of Conservation Districts
- Alaska Community Foundation
- Alaska Conservation Foundation Watchable Wildlife Fund
- Alaska Department of Fish & Game
- Alaska Forum on the Environment
- Alaska Geographic
- Alaska Sustainable Salmon Fund
- Exxon Valdez Oil Spill Trustee Council
- National Fish & Wildlife Foundation
- Newman's Own Foundation
- North Pacific Research Board
- Rasmuson Foundation
- U.S. Fish & Wildlife Service
- U.S.D.A. Forest Service

WHAT PERCENTAGE OF OUR CORE BUDGET COMES FROM UNRESTRICTED FUNDS?



## FISH PASSAGE



- + Old railroad culvert removed from Odiak Pond with assistance of National Civilian Conservation Corps team.
- + Goose Meadows culvert application funded (*construction will be in 2016*).
- + 132 culverts visited to determine survey needs. 23 habitat and 7 culvert surveys conducted to help identify high priority fish passage improvement projects.
- + 25 member working group established with Alaska Department of Transportation & Public Facilities (ADOT/PF), AK Department of Fish & Game and CRWP staff to meet annually, review culvert replacement priorities, and integrate culvert replacement opportunities with ADOT/PF work schedules.

## WATERSHED EDUCATION



- + 5 middle and high school classes donned chest waders and immersed themselves into local waterways to assist with habitat surveys.
- + 50 high school students helped to collect native plants and 15 students helped transplant them into the bioswale designed to filter stormwater run-off.
- + Copper River Stewardship Program participants conducted 6 interviews over the course of their 8 day adventure to learn more about different perspectives in the watershed.
- + Cordova elementary students released 250 salmon fry they helped to raise from eyed eggs in the classroom salmon tank.
- + 15 community members participated in the first Fish 2 School luncheon at Mt. Eccles Elementary School. They shared how their job is related to salmon with 5th grade students and enjoyed local fish for lunch in the school cafeteria.

## INVASIVE WEEDS



- + 40+ volunteers turned out for Copper Basin weed pull; 2,032 pounds of white sweetclover removed.
- + Approximately 2 acres of light-excluding tarps removed (*after 2 – 3 growing seasons*) from reed canarygrass infestations along Copper River Highway. This roadside area was re-vegetated successfully with arctic red fescue grass.
- + 2 major surveys completed to look for white sweetclover: 18 river miles on the Gulkana and Copper Rivers from the Gulkana River bridge to Copper Center (*none found*), and 25 miles of trails in the Eureka Hills along the Glenn Highway (*none found*).

## SALMON BLITZ



- + 19 streams assessed.
- + 128 volunteers participated.
- + Over 20 miles of new stream data nominated to State of Alaska Anadromous Waters Catalog.

## TOURISM DEVELOPMENT



- + Copper River WILD! Salmon Festival, over 1,000 attendees the first night alone!
- + Trail construction: completed work on Eyak Mountain Trail restoration.
- + Traveling by Story Through Copper River Country workshop in Tazlina with eight community partners.

# THANK YOU, MEMBERS

## ANCESTORS' LEGACY, \$1000+

Bill & Marion Alexander  
Alyeska Pipeline Service Co.  
American Seafoods Co.  
Carol Bailey & Steve Medwell  
Carroll Barclay  
Lili Koch Colby  
Tom Hall & Elizabeth McLoughlin  
Curt & Betty Jones  
Connie & Bill Jones  
Bill Leighty & Nancy Waterman  
Riki Ott  
Russell & Joan Smith  
Jim Staszewski  
Lorna Stern  
Charles Wilson  
Wilson Construction

## WATERSHED STEWARDS, \$500

Alaska Marine Lines  
Phil Blumstein & Rich Ervin  
Allison & Chris Bovard  
Ken Carlson & Karen Hyer  
Copper River Seafoods  
Cordova Telephone Cooperative  
Currant Ridge Cabins  
Arthur J. Donald Family Foundation  
John & Liz Garner  
Harborside Plzza  
John & Barbara Harvill  
Deirdre Henderson  
Gretchen Hull  
McCarthy River Tours & Outfitters  
Ocean Beauty Seafoods  
Northern Alaska Fish  
Bert Stammerjohan & Elizabeth Senear  
The Triton Foundation  
Cliff Ward

## TRIBUTARIES, \$250

Agnew::Beck Consulting, Inc.  
Alaska Biological Research Inc.  
Rich & Shannon Alloway  
Keri Bailey  
Amy Bernard & Kirk Larsen  
Kory & Jeannie Blake  
Tim Brabets  
Dino Ciabattoni  
Bob & Susan Clausen  
C.D. & Cathy McCurry  
Cordova Wireless Communications  
Andra & Nathan Doll  
Stuart & Margery Elsberg  
Sue Farzan  
Tony Gasbarro  
Mary Hall  
Denton & Tamara Hamby  
Anne & John Herschleb  
Ken Hodges  
Marie & Charles Hoffman  
IBEW Local 1547  
Gary & Cynthia Jacobs  
Peter & Tanya Johnson  
KCHU  
R.J. Kopchak & Barclay Jones-Kopchak  
Cathy & Fred Keuthen  
J.R. & Leslie Lewis  
Bert Lewis & River Gates  
Jack & Lynn Loacker  
Marine Jet Power Inc.  
Debra Miller D.M.D.

Diane & Greg Morgan  
Mary Jane & Alan Morse  
Kate & Andy Morse  
Eric Manzer & Molly Mulvaney  
Jason Nierman  
Ninkasi Brewing  
Becky Nourse  
Dr. Oliver & Eve Osborn  
Riverside Inn  
Mimi & Steve Rothchild  
Shoreside Petroleum  
LuAnn & Nate Skow  
Kate & Reid Smith  
Roy & Dede Srb  
Rocky Stone & Robert Sullivan  
Terry & Ann Talcott  
Cherri & Vaughn Thomas  
Tom Douglas Restaurants  
Charlotte & Lance Westing

## WRANGELL PEAKS CIRCLE, \$100

Rob Alexander & Chip Brown  
Ron Andersen  
Lee Rolfe & Tony Angell  
A Rogue's Garden  
Heidi Babic  
Baja Taco  
Audubon Bakewell IV  
Dr. Howard & Jean Baumann  
Bayside Storage  
William Beattie & Evonette Aponte-Beattie  
Lou Beaudry & Bonnie Makinson  
Gil & Elinor Beck  
April & Robert Beedle  
Ann Behnke  
Tony Beran  
Judy & Mark Berger  
Laurie Berger & John Jenkins  
Dan Bilderback & Christine Sager  
Mary Anne & Nancy Bishop  
Bill Black  
Brittany Blain  
Peter & Robin Blake  
David & Donna Blount  
Toni & John Bocci  
Katy Boehm  
Dr. Chris & John Booren  
Jim Bovard  
Joan & Charles Bovard  
Hanley Brite & Nancy Bancroft  
Sharon Brumbley  
Robert Bundy  
Bruce & Shirley Cain  
Danny & Kristin Carpenter  
Jim & Marilyn Chu  
Elizabeth Clark  
Becky Clausen & Dirk Lang  
Beth & Al Clayton  
Rich & Debbie Collins  
Xiomara & Steve Copeland  
Copper River Fleece  
Copper Valley IGA  
Cordova Drug  
Andy Craig & Seawan Gehlbach  
Linda Crider  
Crowley Petroleum Distribution  
AnnaMarie Davis  
Brent Davis & Lauren Padawer  
Gail Dickenson & Ronald Peshock  
Mark Heidbrink & Becca Dodge  
Eric Downey & Cathy Hart  
G. Warren Elliott  
Peter & Nancy Fenner  
Glennallen Rustic Resort B&B  
Glenn Transport  
Lynn Grams  
Roslyn Solomon & David Groff  
Janet & Donald Groschel  
Kent & Lynda Hamby  
Nelly & Michael Hand  
Laurie & Bruce Hauptli  
Jeff Hawley & Nancy Peterson

Richard Henderson & Aziza Powell  
Diane & Kent Herschleb  
Phil Hess  
Cindy Hjort  
Kirk Hoessle & Gabrielle Markel  
Teresa & Jim Holley  
Judge Marvin & Sophia Holz  
Margaret Hunt  
IBEW Local 1547  
Deborah Jacob  
Meg Jensen & Mike McQueen  
Cynthia Jones & Phil Oman  
Patti Kallander  
Kendra's Creations  
Iyad Khalaf  
Father Tom Killeen  
Andrew & Katherine Klonecke  
Tom McGann & Sue Laird  
Seth Landau  
Laura's Liquors  
LFS Marine Supplies  
Bill & Renee Lindow  
Ian Lindsay  
Eric Lutz & Cynthia Buchanan  
Mike Mahoney  
Donna McBain Evans & Sam Evans  
Kevin & Suzanne McCarthy  
Patty & Dennis McGuire  
Johnny & Johana McMahan  
Mike Anderson Pottery  
Virginia & Jack Miller  
Pamela Moe  
Bill Mohrwinkel  
NAPA/ Anchor Auto Marine Inc  
Kelly Neuman  
Stuart & Sallye Norris  
Orca Book & Sound Company  
Janat & Jack Parker  
Jackie Reeves & Matt Bronson  
Monika Raghetti  
Jonathan Riehle & Angela Bohmann  
Larry Rinder  
Ed & Melissa Robert  
Bruce & Kari Rogers  
Bill & Mary Earl Rogers  
Arlene & Danny Rosenkrans  
David Rosenthal  
Brian & Vera Rutzer  
David Saiget  
Beth & Rich Schluter  
Steve Schoonmaker  
Sheridan Ski Club  
Cathy & Dixon Sherman  
Dawn & Jeff Smallwood  
Jennifer Sutton & Todd Smith  
Wayne & Diann Smith  
Cece Stack & Britt Pedicord  
Sandra & Rich Staples  
Jim Staszewski  
Brad & Denise Stern  
Jeff & Liz Stonehill  
Jim Stratton  
James Thorne  
Timeless Beauty Endless Health  
Mark Vail  
Tamara & Terry VanWhye  
Gonzalo Villalon  
Shelly Wade  
Jennifer Wagner & Tim Seaver  
Eric and Janice Wurga  
David Hartley & Helen Weagraff  
Jim & Barbara Webber  
Mike Webber & Katrina Hoffman  
Jim & Maria Wessel  
Violet & Joe Whaley  
Meredith Yasui & Erin Flory  
Karen Yoshitomi

## RAVEN'S CLAN, \$50

Michael Allwright & Lilly Goodman  
Kris Anderson  
Dave & Annette Janka  
Molly Brewer  
Dan Bates  
Dave & Laura Beam

Karl Becker & Nancy Bird  
Charlie & Patty Bell  
Teresa & Andy Benson  
John Bodner  
Tim Bowman & Judy Engh  
Michael & Lillian Cawdrey  
Barbara Cellarius  
John Cholish  
Bill & Diane Cobb  
Susanna Colloredo-Mansfeld  
Copper Valley Development Assoc.  
Joe & Belen Cook  
Robert Wilkerson  
Peyton Coynor  
Crocket's  
Pere Davison  
Julie de Boer & Robert Carr  
Lloyd Dolby & Darlene Kline-Dolby  
Micah Ess & Michelle Dockins  
Tom Brigham & Ginny Fay  
Michael Ferraro  
First National Bank of Alaska  
Carole Fisher  
Denny Patnode & Jane Flygstad  
Tanya Zastrow  
Patricia & Walter Foulkrod  
Mark & Cindy Frohnappel  
Kristina & Gerry Garcia  
Glennallen Building Supply  
Glenn Transport  
Toni Godes  
Kurt Goetzinger  
Marnie Graham & Douglas Vollman  
Scott Grieve  
Cheri & John Grocott  
Becky Hawley & Bruce Harvie  
Blair Hensen  
Dr. Donald & Louise Heyneman  
Elizabeth & Martin Hubbe  
Phil & Audrey Huffman  
Julie Jessen  
Kara Johnson  
Tim Joyce & Carol Hernley  
Adam Kenyon  
Marita Kleissler  
Knot Crazy  
Ben & Kaitlin Kramer  
Rebecca & Matt Kull  
Les & Joan Larson  
Liz & Bill Larzelere  
Jessyka Dart-Mclean  
Sue Kesti & Dan Logan  
Judith & Matt Lorenz  
Bob & Becky Lowry  
Matt & Roni Luck  
Steve Marshall & Sandra Pedigo-Marshall  
Chris & Heather Maxcy  
Megan McBride  
Molly McCormick  
Cliff Eames & Ruth McHenry  
Caitlin McKinstry  
Steve Moffitt  
Robert & Lucille Montplaisir  
Mountain View Grocery, Gas & Liquor  
Howard Mozen & Elizabeth Schafer  
The Net Loft  
Mitch & Gail Nowicki  
Justin & Tracey Nuzzi  
Bill Pearson  
Pete's Treats  
Jennifer Pickett  
Rich & Laura Pribyl  
Virginia Reinhart  
Julie & Brad Reynolds  
Tim Richardson  
Diana Schaney  
Clair & Steffan Scribner  
Dick & Sue Shellhorn  
Tommy & Ellen Sheridan  
Adrian Smith  
Dana & Anita Smyke  
Dustin Solberg & Ann Harding  
Carla & Mark Somerville  
John Stack & Barbara Solomon  
Lisa Stephenson & Matthew Chan  
Tolsona Lake Resort  
Vladimir Ulyanov & Tatyana Ulyanova  
Barbara Vaile  
David & Chris VanCleve  
Jo & Blaine VanDerSnick

Ken Van Gilder  
Gay & David Wellman  
Linda Wright

## KINGFISHERS, \$25

Jim Annicelli  
Mike Babic  
Tom & Barb Bailer  
Heather Beaty  
Mimi & Tim Briggs  
Donna Brown  
Matt & Jennifer Conforti  
Jill & David Crowley  
Judy & John Day  
Chris Dunlap  
Heath & Erin Emmons  
Sally Entrekin  
Jamie Foode  
Doug Fulton  
Chris & Leah Grey  
Jeff Guard & Dorne Hawxhurst  
Nancy Hill  
Homestead Supply Ace Hardware  
Lucas Hyce  
Adriane Honerlaw  
Mike Jackson & Joan Bugbee  
Jackson  
Dena Jameela  
Justin Johnson  
Heath & Shelly Kocan  
Wayne Lau  
Becci & Hamilton Long  
Chris & Heather Maxcy  
Robert McCleary  
Diane McDougle  
Megan McKinzie  
Kim Menster  
NAPA Auto Parts/Alaska Auto Center  
Jennifer Palmisano  
Purvi Patel  
Reggie Robinson  
Lois & Bob Rodrigues  
Praveen Sattaru  
Barbara Sherman  
Jed Smith  
Kathryn Stoltzfus  
Tazlina River Trading Post  
John & Joann Thomas  
Ginger Thrash  
Kirsten Valentine  
Danielle Verna & Jacob Betts  
Seth Walker & Emerald Bogue  
Wells Fargo Glennallen Branch  
John Page Williams

## SUBSISTENCE LIVING, \$10

David & Marilyn Buchanan  
Becki & Dave Buss  
Dawn Horvath  
Erica Thompson & Dan Clark  
Courtney Eberhardy  
John Egger  
Tom Haddock  
Jillian Jablonski  
Sandy Keller  
Lanette Phillips  
Arctic Lutz  
Pet Projects, Inc.  
Matt & Sherry Shaw  
Trey Simmons  
Stephen Witsoe



We'd like to recognize to the following business who generously supported CRWP events and educational programs with significant gifts in 2014. Please support these businesses that support sustainable economic development in the Copper River region.



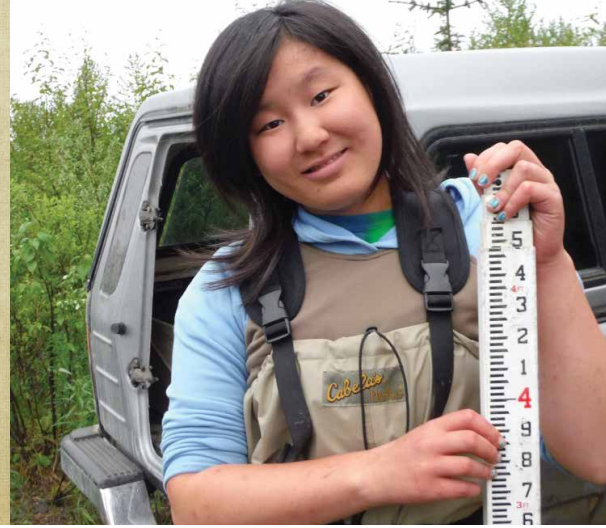
WILSON CONSTRUCTION

RIVERSIDE INN & CHILD'S GLACIER TOURS

## ENGAGING THE NEXT GENERATION:

**CORDOVA CAREER READY PROGRAM SUPPORTS STUDENT INVOLVEMENT IN COMMUNITY ORGANIZATIONS**

BY CADI MOFFITT  
JUNIOR AT CORDOVA HIGH SCHOOL



For the past three quarters, I have been job shadowing at the Copper River Watershed Project (CRWP) as part of Cordova School District's Cordova Career Ready program. For one class period a day I observe and take part in various activities at CRWP. I've written newspaper articles about Salmon Blitz and the bioswale recently installed behind the Cordova Community Medical Center. I've drawn a Salmon Blitz logo and have developed an independent study to start my own project; an artistic mosaic sign depicting plants from the native plant garden that will be permanently installed by the garden that was established by CRWP and the City of Cordova next to Odiak Pond.

I've also experienced office work like stamping, addressing, and labeling letters and writing thank you notes to sponsors. I've observed board meetings and teleconferences, and I attended the Alaska Forum on the Environment where I presented on the Copper River Stewardship Program with three other students.

The best part about working at the Copper River Watershed Project is getting to share my artistic talent. Since starting, I've learned a lot about how I can use my art skills and interests for use in the science field when before I didn't really think about it. Making logos and signs has use a lot of other places besides the basic art field. I've seen how it can be used to educate people about the environment and spread messages in ways that words and paragraphs can't.

One of the most positive parts about the Copper River Watershed Project is the impact they make in the community. It's really rewarding to see how you can make a difference in the environment, whether it be monitoring salmon streams to add to the State of Alaska's Anadromous Waters Catalog or taking weeklong trips with students to teach them about the watershed. It all contributes to the well-being of our community which is pretty cool. The less positive aspect that I've observed is all the inside desk work necessary to make it all happen. A whole lot of important work is put in behind the scenes to raise money and gain support for their programs.

This career choice has influenced me and my future interests by opening me to the world of art in science. I've always liked art and science, but doing art projects with the Copper River Watershed Project has helped me to see all the ways I can use my art to benefit the environment with signs and logos. Because of my experience here, I see that art is a powerful tool to use in science education.



This interpretive sign created by Cadi and two other high school students will be permanently installed in Cordova by the bioswale next to Odiak Pond.

# RIDGELINES: AROUND THE WATERSHED

## CHINOOK NEWS, WINTER 2015

Weak Chinook salmon runs have affected cultural patterns of food gathering, sport opportunities, and commercial economic activity, and the State of Alaska launched the Chinook Salmon Research Initiative in 2012 to further explore and address the causes for the down turn in production. Top fishery scientists in Alaska produced the research plan now being implemented by nearly 200 ADF&G staff working on 35 projects funded by the Alaska Legislature. A Winter 2015 Chinook News newsletter is available on the State's website with updates on research projects on the twelve river systems of primary concern, including the Copper River: [www.adfg.alaska.gov/index.cfm?adfg=chinooknews.main](http://www.adfg.alaska.gov/index.cfm?adfg=chinooknews.main).

Chinook salmon research on the Copper River is directed at learning more about adult and juvenile abundance, stock composition of the harvest, and traditional knowledge of the fisheries. Several research projects are being conducted over the next few years, and include: estimating Chinook salmon spawning in the Gulkana River above and below the counting tower on the Gulkana River, genetic sampling to determine stock of origin and better knowledge of stock run timing, studying out-migration of juvenile Chinook salmon to estimate marine survival rates, and interviews of fishermen to collect local knowledge about factors that influence harvest and use of Chinook salmon. *Contact: Ed Jones, Chinook Salmon Research Initiative Coordinator, Alaska Department of Fish & Game, [dfg.chinooknews@alaska.gov](mailto:dfg.chinooknews@alaska.gov).*

## YOUTH ENVIRONMENTAL SUMMIT (YES) ON AUGUST 11 – 13, 2015

The Youth Environmental Summit (YES) is a day camp program hosted by the Native Village of Gakona. YES is an event where children from the Copper River region come together for multiple

days, to participate in activities that will give them a foundation to become good stewards of their environment. The youth gathering of K – 8th graders is supported by a team of volunteers, partners, and sponsors from the local community and beyond. YES draws crowds of up to 100 children from nine different communities from the Copper River region.

This year's theme is "We All Live Downstream" which will be held at the Slana school grounds, and will engage youth in showing the importance of the Copper River watershed and how to be safe while enjoying its beauty. *Contact: Tim Skiba, Native Village of Gakona, 907-822-5777 or [gakonaec@gmail.com](mailto:gakonaec@gmail.com). Registration sheets and more can be found at [www.nvgakona.com](http://www.nvgakona.com).*

## COPPER RIVER WILD! SALMON FESTIVAL JULY 17-18, 2015

Join us in Cordova for a jam-packed weekend full of fun and festivity at the Copper River Wild! Salmon Festival, July 17-18, 2015. Experience the energy and enthusiasm of our rustic fishing community, home to world famous Copper River salmon. This event aims to celebrate salmon and promote the health and sustainability of local salmon runs through art, music, road races, and education activities. And there will be lots of delicious Copper River Salmon to enjoy, too!

Festivities kick-off on Friday night with the Taste of Cordova seafood cook-off. You can try delicious local fares while sipping Ninkasi brews in the beer garden and enjoying live music at Salmon Jam. Saturday morning runners head "out the road" to their desired starting point, racing across the Copper River delta to complete a full or half marathon, 10K or 5K, or enjoy the company of friends and family in the 1-mile fun run. Saturday afternoon there are free educational activities for the young and young at heart, including fish printing, casting, fillet demonstrations,

arts and crafts, and relay races. The weekend concludes with another night of Salmon Jam complete with more live music, beer garden, and lots of dancing. *More information - including event schedule and discount travel codes - available at [copperriverwild.org](http://copperriverwild.org), or contact festival coordinator Kate Morse at 907-424-3334, [kate@copperriver.org](mailto:kate@copperriver.org).*

## GULKANA RIVER RAINBOW TROUT TO STAR AT FIRST WORLD TROUT CONGRESS, JULY 26-31, 2015

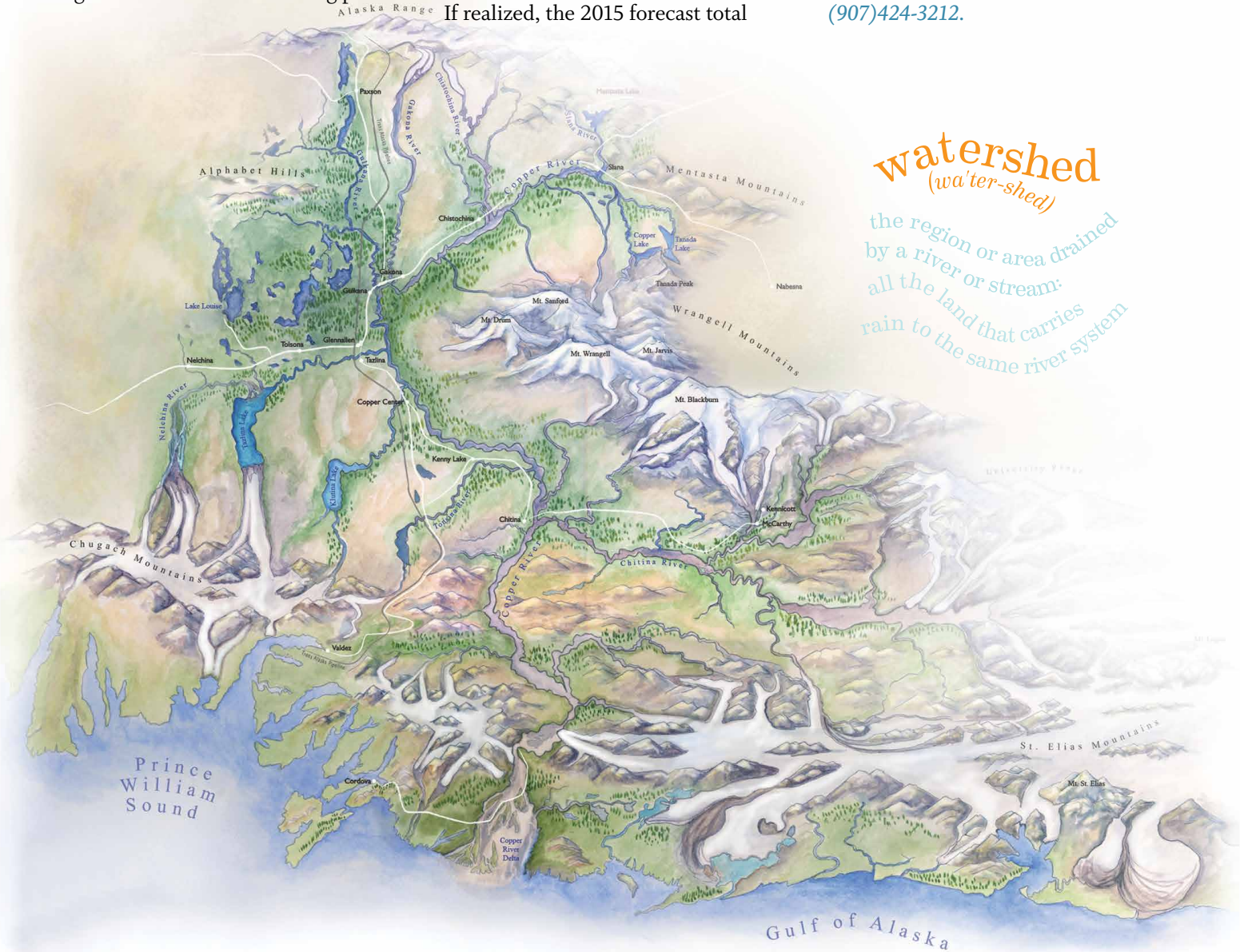
The Gulkana Wild and Scenic River rainbow trout population is the northernmost population of rainbow trout in North America. As a tributary of the renowned Copper River, the Gulkana was designated as a Wild and Scenic River for its habitat that supports the largest fisheries for rainbow trout and Chinook salmon in the upper Copper River watershed. In a recent cooperative telemetry study between the Alaska Department of Fish and Game (ADF&G) and the Bureau of Land Management (BLM) in Glennallen, Alaska, a rainbow trout was captured and radio tagged in the Gulkana River which then migrated further north for spawning to Hungry Hollow Creek at latitude 62.995°. This fish migrated a few kilometers further north than any rainbow trout from prior Gulkana River telemetry studies. Was the tagged trout that migrated north to Hungry Hollow Creek the northernmost rainbow trout in the world or is there a population in Russia that is even more extreme? When Jack Williams, Senior Scientist at Trout Unlimited, was informed about the study, he contacted Tim Sundlov of BLM. Trout Unlimited is a supporter of the first ever World Trout Congress to be held in Bozeman, Montana, July 26 - 31, 2015 and Jack felt this was the perfect question to pose to this first congress of trout enthusiasts. *Contact: Tim Sundlov, BLM/Glennallen Field Office, (907)822-3217.*

**2015 COPPER RIVER/PRINCE WILLIAM SOUND SALMON FORECAST RELEASED**

The Alaska Department of Fish & Game (ADF&G) has calculated projections for salmon returns for pink, sockeye, Chinook, chum, and coho salmon in the Copper River and Prince William Sound fisheries. ADF&G researchers note that ocean temperatures were relatively steady and warmer from 1997 – 2007, but since then have fluctuated considerably. Ocean temperatures cooled from 2007 – 2009, warmed through 2010, cooled down again until 2013, and warmed up again in 2014. These swings “likely play a significant role in determining pink

salmon returns in Prince William Sound.” A total run of 16.8 million pink salmon is forecasted. Ocean temperatures are also believed to have a negative affect on the chum salmon returns, projected to be just under half a million, which would be the 34th largest return since 1970. The total run size of chum salmon has not exceeded 1 million since 1988. For king salmon, the 2015 total run forecast of 35,500 is less than half the 16 year average total run size (1994 – 2014 average is 64,400). The 2015 total run forecast (3.19 million) for natural (non-hatchery) Copper River sockeye salmon is similar to the recent four year average total run (3.18 million). If realized, the 2015 forecast total

run would be the fifth largest in the last 36 years (since 1980). Returns of salmon that entered the ocean in 2012 have had excellent survival so far, but the significantly warmer North Pacific waters in 2014 will increase the uncertainty in the 2015 run projection. Greater uncertainty, though, for predicting the natural run of Copper River sockeye comes from using a number for four-year old salmon in the model that is outside the range of historical data to predict the number of five-year old salmon returning in 2015. (Excerpted from 2015 Prince William Sound and Copper River Salmon Detailed Forecast.) *Contact: Steve Moffitt, PWS Finfish Research Biologist, Cordova (907)424-3212.*



**watershed**  
(wa' ter- shed)  
the region or area drained  
by a river or stream:  
all the land that carries  
rain to the same river system

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**COPPER RIVER  
WATERSHED PROJECT**



# Newsletter SPRING 2015

- \*\*\*  
*inside*  
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- \* Salmon Blitz
  - \* Invasive Elodea
  - \* 2014 annual report
  - \* Engaging the next generation



## WHY I SUPPORT CRWP

**ROY AND DEDE SRB**  
CORDOVA, AK

### *“We all live downstream.”*

A refrain that couldn't be closer to the truth! I've experienced firsthand that the Copper River Watershed Project is the embodiment of this message, and for that, my wonderful wife and I support them wholeheartedly.

Since its inception, the CRWP has worked diligently in promoting the idea of both sustainable and environmentally-conscious development. It seems you can have it both ways.

The communities located within the Copper River watershed have seen many tangible benefits resulting from CRWP, including education and outreach programs and restoration and pollution control projects. I've even received training at my work place to help me spot invasive plants in the field, which made me aware of the effects that those invasive plants pose to our watershed.

The CRWP is enthusiastically working with science students to help mitigate pollution and other environmental problems. They are training our future leaders!

The CRWP has done a fine job in bringing diverse stakeholders together. They have helped to form working partnerships between both the public and private sectors. I have seen this first hand as a USDA-Regional Advisory Council member.

All this work brings grant monies and matching funds to our communities. These monies translate into jobs, which makes everyone happy!

My wife and I couldn't be more proud and enthusiastic in our support of the Copper River Watershed Project!