HARDWARE STORE HERALD

Volume 16

News from the Wrangell Mountains Center

Winter 2015/16

Connecting people with wildlands through art, science, and education in the Wrangell Mountains.





▲ Hiking out to the Root Glacier, one of the WMC's favorite classrooms

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Letter from the President

n December 2nd 2015, the date of this writing, we celebrate the 35th anniversary of a remarkable and visionary piece of legislation; The Alaska National Interests Lands Conservation Act (ANILCA). This law set aside 104 million acres of lands in Alaska, including the Wrangell-St. Elias National Park and Preserve – the largest national park unit in the U.S.

The work I did in college, studying Alaska lands policy and ANILCA, is what brought me to the Wrangells in 1985. The beauty, wildness and community grabbed a strong hold on me then, and still won't let go. I have found it fulfilling and joyous to share my connection to this magical place through the work of the Wrangell Mountains Center (WMC).

The WMC celebrates its 31st season this year, and continues its mission to offer programs that stitch together the worlds of the wild and the civil. After three decades of involvement, I find the mission and work of the WMC compelling, important, and very worth my energies. Some of you live in the Wrangells and understand, some of you were there years ago and remember, and others have never been. I encourage you all to visit McCarthy, Alaska, reconnect, or see for the first time our campus and the powerful landscape in which we do this work.

Please take a moment from and check out this newsletter, see what we are doing, and send us your support.

May you find peace in this season.

Hugs all around,

Howard Mozen, WMC President



▲ The RiverSong workshop congregates on the beach of the Chitina River

2015 Mountain Arts and Science for Youth Programs

by Lara Applebaum

Tisitors and local youth from age 5-15 came together again for interactive workshops fostering creativity, understanding, and connections to our local culture and environment. More than 20 youth participated in this five-week series, including weekly science and art workshops. Art workshops included individualized and group projects in storytelling, jewelry, fabric prayer flags, glass luminaries, and leaf print pillowcases; as well as dancing and drumming. Science workshops included hands-on investigation of our local environment including fish and aquatic invertebrate sampling, plant and bird identification, and a half-day hike for older youth to the Root Glacier to explore glacier features.

Many thanks to our partner organizations including the Wrangell Institute for Science and the Environment and Kennicott Wilderness Guides, visiting artists and educators, and our local volunteers for their willingness to share their time and talents with us! Additional thanks to the Blackburn Heritage Foundation for their generosity in sponsoring this program. We look forward to another summer of fun and exploration!





▲ Above: Mountain Science for Youth on the Root Glacier

◆ *Left:* Ashley Hovis shows students of all ages how to make wire wrap jewelry





▲ Left: Nate and the Heuke Drill. Right: Ogives on the Root Glacier are best seen from an airplane

Studying Ogives and Compression on the Root **Glacier**

By Nate Anderson

he timing was perfect. In Professor Mike Loso's Physical Geology course at Alaska Pacific University last fall, I jumped on his mention of a student glacier research project near McCarthy, AK. I arranged to work on my senior thesis as an intern at the WMC in exchange for room and board.

I arrived in McCarthy in early June with a truck bed full of glacier research equipment. The first thing I saw as I walked across the footbridge was the towering Stairway Icefall flowing down into the lower Root Glacier. This was where I spent a collective time of almost three weeks over the course of the summer collecting data for the project.

At our research site, several miles up the glacier, we used a contraption called the Heuke Drill (which looks like a space craft) to drill several meters into the ice and drop markers that were revisited several times throughout the summer. We measured melt, velocity, and looked for the fascinating evidence of compressing and folding ice as the icefall meets the lower glacier.

At the base of the icefall, we saw blue pockets of ice indicating folds in every direction. Imagine taking a piece of paper that is laying flat on a table and pushing the two ends of the paper together; that's what these folds looked like, in all different shapes, sizes, and orientations due to compression.

My objective was to learn more about the formation of a glacial feature called ogives, topographical and banded ice waves that show up

below many large icefalls in the world. Ogives have never been studied on the Root Glacier, which made this project even more appealing. I had an amazing support crew this summer, including including Mike Loso, Dan Coslic, Jesse Wright, Mary Gianotti, Haley Dunleavy, and Bryon Hoerner. I cannot thank them enough. I hope to continue work in glaciology and come back out to the McCarthy/Kennecott area as soon as possible.

Small Mammal Research

by Karen Mager

mall mammals such as voles are known to many of us as the critters that scamper across our paths and raid our kitchens, but what ecological roles do they play and what can they tell us about environmental change? This summer three of my Earlham College students and I joined the WMC community for a new field research project in partnership with NPS.

Small mammals are abundant, mobile, shortlived, and produce multiple litters of offspring in a single summer, making their populations useful indicators of environmental change among mammals. Changes in climate that influence the berry crop, for example, can affect vole numbers, which in turn may influence weasel density. Documenting changes in small mammal species diversity can also help us to understand how species respond to climate change, including shifts in species ranges and the potential for hybridization between formerly-separated species.

Merging backcountry living with scientific research, we backpacked live traps and gear out to each study site, set out 200 traps in two football-field sized grids, and checked traps three times per day for four days at each site. When not in the backcountry,



▲ Zara Silberberg with a vole trapped in the alpine above Kennecott

our days were spent trapping from our base at the Hardware Store, sharing meals with visiting artists, and joining in the 4th of July parade.

One month of trapping yielded 428 voles (four species) and shrews (two species) captured and released. Not surprisingly, the heaviest red-backed voles that we captured were in town! We chose our trapping locations with the park's goal of long-term monitoring in mind-habitat types vary from bog to shrub-tundra to riparian forest and all are on park service land within a few hours' hike of McCarthy or Kennecott.

In the future years, I hope to add sites at higher elevations and on nunataks, and to continue to engage the WMC community and college students in research. Discussing this project with the many skilled naturalists in the valley this summer was a highlight for me. If you have interesting observations to share, especially of species such as deer mice or rats that are not native to the valley, please let me know! karen.h.mager@gmail.com.

▼ Learning about birds in MXY. Left: On Mark Vail's Memorial Day Bird Walk. Right: with Alex Rose at Mountain Science for Youth





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▲ Kevin Muente's painting of the swimming hole is now part of the WMC permanent collection

Residency Program

by Kristin Link

2015 marked the second summer that the WMC hosted the Meg Hunt Residency Program, which offers two-week long residencies to artists and writers including room, board, and time and space to work in exchange for community outreach. In both 2014 and 2015, we were impressed to receive approximately 80 applications from across the nation. A committee of staff, board members, and past residents selected four residents for 2015. We had many qualified applications so making a selection was difficult, but we selected residents that we felt would most benefit from and give back to the local community and landscape. Read more about our 2015 residents below:

- University professor and painter Kevin Muente joined us to explore the local landscape in oils. In addition to creating a series of studies, Kevin took photos for larger paintings that combine figure and landscape painting, and gave a public lecture.
- Krista Langlois is an essayist and independent journalist. After two months traveling around Alaska, working on a series of magazine articles, Krista came to the WMC for two weeks to reflect, edit, and share her work with a public reading.
- Erica Hanson creates weavings, videos, and installations to explore nature and how poeple try to represent and reproduce it. She led a community workshop where people wove found objects and fibers on a rustic warp weighted loom that she constructed on site.
- J. Jason Lazarus is an Alaskan photographer and university educator whose work represents a fusion of both digital and analog techniques. He photographed the local area including the mines and Kennecott millsite as well local natural history, gave a lecture, and offered a workshop showcasing his photography printing techniques.

Learn more about past residents and apply for the Meg Hunt Residency Program at wrangells.org/residencies &

Making Art and Handmade Books in the Wrangells

by Susan Joy Share

I visited McCarthy, AK for the first time in 2015 as an artist in residence and workshop instructor for the WMC. I was immediately inspired by the unique, historic town surrounded by spectacular mountains and rushing rivers. The WMC campus was buzzed with artists and scientists focused on their projects. I was lucky to attend Maria Shell's fabulous Sew Fun class and then enjoyed a few days in the Center's lovely ArtSpace Bungalow as an Artist in Residence. I explored the Kennecott Mine area, climbed on the Root Glacier, took river walks, biked to the Nizina River, collected rocks, photographed and drew in my sketchbook. The WMC provided delicious, garden fresh lunches and dinners, cooked up by chef, Rachel Franklin.

My two-and-a-half-day workshop, Exploring Handmade Books, introduced bookbinding techniques, tools and materials. On the first evening, students painted a fantastic array of papers, filling the classroom and clothesline outside with vivid colors and patterns. In combination with paint, we used English rubbing crayons and rubber stamp foam to collect words, shapes and textures found in and around the Center. Everyone shared inspiration and ideas. The next two days focused on cutting, folding, sewing and gluing to create numerous styles of sketchbooks, journals and accordion books. We used our painted papers in many of the books. Students began to fill their books with words, photos and collage. Visitors and tourists wandered into the Old Hardware Store and admired the books and papers by the talented, hard-working students.



► Happy students show their work at the end of Susan Share's bookmaking workshop





▲ Scenes from this year's Family Music Camp. Left: Students playing on the back porch or Porphyry Place. Right: Gathering in a circle during the annual barn dance.

Facilities Update

by Jared Stevaert

weight of the new snow is the food that nourishes the glaciers, and blankets our gardens and roofs. In the case of the Old Hardware Store, the roof and building is getting tired and in need of some major stabilization. Luckily, the WMC's founders, board members, staff, and volunteers have been working tirelessly for 40 years to make sure that this dream can continue in the 105 year-old building.

Last fall/winter, WMC secured pre-development funding through a matching grant with the National Trust for Historic Preservation to help us define a major stabilization and rehabilitation project. This pre-development process is essential to create a cohesive plan that combines experts in historical restoration and modern engineering. Once this planning process is complete, WMC eagerly anticipates actual phased construction and stabilization.

This summer, we were able to get Meg Girard, an electrical engineer, out to redesign and draw out plans for our electrical and solar needs. We have also secured funding to bring a structural engineer, Seth Anderson, and Chris Clark, a water engineer, out early next spring to add their expertise as well.

We look forward to completing our predevelopment work in the next couple years. Once this is complete, WMC will develop a financial plan required for the future rehabilitation work. Ask us how you can make sure the Old Hardware Store can last for at least another 105 years as a house of inspiration.

Mushrooms of the Wrangells

By Mark Vail

ver the Thanksgiving holiday, someone at the dinner table talked about never seeing a flying squirrel out here in the Wrangells. Then last night, I had one visit the bird feeder outside my window. The sight took me back to the mid-August workshop with Dr. Gary Laursen. The connection between squirrels and mushrooms was just one thing we learned in the three-day workshop.

Following a very dry spring and mid-summer, I questioned how many mushrooms we would find. Fortunately rains arrived the week prior, and mushrooms began to flush daily. The workshop opened with a public lecture where we were given field guides, *Common Interior Alaska Cryptogams*. Cryptogams are species of plants, like mosses, ferns, and fungi that reproduce by spores, not flowers and seeds. Cryptogams are well represented in the Boreal forest. Half of the fungi in interior Alaska are decomposers that release nutrients back into the living cycle of plants and animals. Many trees, shrubs, and flowering plants develop beneficial relationships with fungi through a mycorrhyzal (fungi/root) network

Each day we explored area trails and massed an impressive collection of species that amazed us all in variety, number, and form. Each evening at the Hardware store, we classified our finds using a variety of measures including appearance, smell, taste, and whether staining occurred when cut or bruised. We also made spore prints by placing caps of mushrooms on paper covered with a glass overnight. Overall, we classified 121 separate species, representing at least 21 groups within three families. (Continued on next page)



▲ Playing music and writing songs and poems around the fire keeps RiverSong students and instructors warm into the evening

Mushroom Workshop (continued)

As for edibles, we learned that our common Orange delicious is *Lactarius deterremus*, a genetic close cousin to *Lactarious deliciosa*, featured in most field guides. We also found five distinct Bolete species, which take a discerning eye and careful study to be sure of their edibility. Also collected were *Gomphus clavatus*, a chantrelle, puffballs, shaggy manes, and some corals that need close inspection to determine edibility. On the opposite end of the scale, we saw poisonous mushrooms; the most commonly found was *Hebeloma crustiliniforme*.

It was fun to go afield with an expert and a group of mycophiles and to find so many different species, especially after the dry summer. With more rain the following week, many new mushrooms appeared as if overnight; yet now we knew they were there all along, waiting for the right conditions to produce their fruiting bodies for our food, our study, and to continue the nutrient cycle in our yards and fields and forest for times to come Now, in winter even the squirrels, both flying and red, are busy eating mushrooms when they find my bird feeders lacking.



Singing on the River

By Frank Soos

Lit's hard to explain what the river does to people, but it does. Maybe it's the motion. We set out from McCarthy in one big paddle raft, three gear rafts, and a couple of outriders in their tiny pack rafts bound for Chitina. Our goal: to write songs, essays and poems as we made our way down river, and eddied out from time to time for meals and camp.

Day one was the wildest ride, and those in the paddle raft may have earned their dinner, front paddling, back paddling on command through rapids and standing waves. Paddlers looked like Cosmonauts in their watertight suits and headgear. Everybody got a little wet on the outside, but except for one of the paddle rafters, all stayed in the boats.

Some fun on the river, but the real fun of this trip, after we had made camp, had a filling and tasty meal served up by our guides, was to sit around the fire and create. Musicians led by Michelle McAfee, David Grimes and Robin Child, pulled out their carefully packed instruments and began to make up songs on the spot. Song writing, it turns out, can be a wonderfully collaborative activity. Those of us who can't carry a tune, scribbled drafts of essays and poems in our Write-in-Rain notebooks.

David Grimes, the presiding spirit of any river trip he's on, brought flags for the rafts, but we found ourselves one short. So on the first night in camp, our inventive crew made a flag from found materials—willow shoot frame with a variety of wild flowers and stems for what might be called our standard.

You'd think that flag wouldn't last the next day, but it did, and lasted through the chilly rain and wind, too. In a way it became the emblem of the trip, a whacky, seat-of-the-pants creation that did all we asked of it.

So we resisted the strong temptation after entering the Copper River to keep on going to Cordova, and fetched up in Chitina just up river from O'Brien Creek where the dip netters regarded us with amazement as we approached singing our river song with flags flying. We might as well have rafted down from Mars.

All along the way, song writers made songs and sang them to the rest of us. Writers read selections of their new work. All left with promises that more singing and writing would continue to be made once we went our separate ways.

Thanks to our trip organizer, facilitator and general mischief-maker Nancy Cook for another happy workshop.

Thank You Donors and Members!

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Long After By Alex Autio, RiverSong Student

Like smooth syrup we float Down Chitina's glinting face Underneath our raft slides heavy silt Remnant of glacier shadow Rocks for rattles, she hisses like snakes While into porphyry rock she carves.

Sun kissed skin, matted hair, in waves we

Oars for chisels, our work fades as we

Our paper legacy lost in the thin grey snake.

Head on into boils we face The waves, and shiver in clouds' shadow All this to run our fingers through glacial

Next morn, cowboy coffee is thick as silt In camp where rivers' confluence carves A land of fleeting shadows. Upon the breeze the hornet floats

Thin-skinned creatures flee his face His bite as fierce as any snake.

Afternoon, down slanted bluffs gullies snake

Give the river an offering of silt. Ash trees write on hillside face With callous mining roots they carve. Only the dead break loose and float To drift beyond Mt. Fireweed's shadow.

Long before jetliner's shadow This new world where tar and gravel rivers snake

Up Chitina steamboats would float Soon came iron beasts that spewed black

Through granite heavy tracks were carved And now decay on canyon's face.

Long after midnight sun forgets my face One day when sinks my shadow Into earth where rivers carve Sun still will shine on the golden snake Who carries down her silver silt Throughout time the silt will float.

I then shall ride on Chitina's face, carried onward past braided streams that snake. When my shadow sinks, in Chitina my ash will flow like windblown silt. We are all droplets of the river, carving into time while we still float.



Wrangell Mountains Center PO Box MXY, #20 Glennallen, AK 99588 www.wrangells.org





▲ End of the day below the Stairway Icefall. Photo by Nate Anderson

YES! I want to be part of connecting people with wildlands through art, science, and education
in the Wrangell Mountains today

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