

Rumblings

Issue 8 - January / February 2015

Field Notes: Everlasting Wilderness

From *Return to Spirit Lake: Life and Landscape at Mount St. Helens*

By Christine Colasurdo

"My return to Spirit Lake began the day I accidentally happened upon a wildflower so common some call it a weed. Our group of four had set up camp high above Spirit Lake when I noticed it at dusk one late-summer evening. Nighthawks swooped about. A coyote bark drifted up from the east arm of the lake, 2,000 feet below. We stood, ears clipped by wind, on a 5,000-foot-high ridge as the day came to a close and the sky opened. A summer storm that had drenched the area earlier was clearing off, cloud by cloud. The sharp edges of twisted snags and cracked branches softened in the twilight as the last cumulus in Mount St. Helens' crater slipped west, disclosing the volcano's new lava dome. Spirit Lake's steep basin filled slowly with shadows, but sunlight still caught the crater rim and, in the distance, the snowy summits of Mount Hood, Mount Adams, and Mount Rainier. We were high up on the ridge's spine, eye level with four of the Cascade Range's major mountains, the only shining things in the wake of the setting sun.

That was when I first glimpsed, after years of shouldering the loss of a vast green landscape, how I might find a path out of my grief—a grief so strange



Pearly everlasting seedling sprouting out of a blast-killed old-growth conifer

it seemed more like vertigo than mourning. For one thing, the Spirit Lake wilderness bore a strange new name—"blast zone"—to define the area where the volcano's sideways eruption had swept through, blowing trees over and burning them. The words bespoke violence, as though I were returning to a bombed-out house. Worse still, the lake and its surrounding ridges deserved their

new name. For 230 square miles the land was so changed its volcanic aftermath had to be catalogued: *scorch zone, blowdown zone,*

mudflow, pyroclastic flow, debris avalanche. What were those? The first few times I saw Spirit Lake after the eruption, I looked everywhere—at my feet, straight ahead, to the side—trying desperately to get my bearings. Here was once a river. There, a shaded beach. Over there, a grove of old cottonwoods. And on all of the ridges—trees. Everywhere I turned, what should have been lush and cool was desiccated

and barren. Low valleys were high; dry land was now water; dark forests were sunbaked plains. *I've been here before*, I murmured each time. But not only had I lost an entire landscape, I myself was lost—a stranger in what should have been familiar land.

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2015 Winter Adventures

Explore the Northwest's winter wonders on either a guided snowshoe or cross-country ski adventure!
Click on the title(s) to get more information and to sign up.

Mount Adams Big Tree Snowshoe

January 31

Meeting Time: 10:00 a.m.

Distance: 7 miles

Difficulty: Moderate

Snowshoe to the largest Ponderosa Pine in Washington State, 7' diameter and 220' tall. Limited space is available to carpool with us in the MSHI vehicle, let us know if you would like to ride along. A carpool meet-up location will be determined.

Ape Cave Snowshoe

February 7

Meeting Time: 8:30 a.m.

Distance: 3.3 miles

Difficulty: Easy

This wonderful adventure will take you directly to Ape Cave where we will descend into the cave for a dark walk to the lava tube's terminus. We will continue above ground, weaving in and out in a forest with a rich volcanic history. This adventure is perfect for beginners and spelunkers.

Elk Rock Snowshoe

February 14

Meeting Time: 10:00 a.m.

Distance: 5-7 miles

Difficulty: Moderate

Journey on the north side of Mount St. Helens and on a clear day you will have spectacular views of the crater as well as Mount Adams, Mount Rainier and Mount Hood.

Mount Adams Ice Cave and Natural Bridges Cross-country Ski

February 21

Meeting Time: 10:00 a.m.

Distance: 8 miles

Difficulty: Moderate

Mount Adams' Ice Caves are lava tubes filled with stalactites. The cave floor is coated with a thick layer of ice. We will enter the Ice Caves and explore under and over the nearby Natural Bridges and enjoy this secret treasure.

Old Man Pass Loop Snowshoe

February 28

Meeting Time: 10:00 a.m.

Distance: 4-6 miles

Difficulty: Moderate

Trample through a beautiful snow-covered forest will be enjoyable for both beginner and more experienced snowshoers. This mature and varied forest setting is interspersed with mountain meadows and views of Mount St. Helens.

Kalama Ski Trail Loop

March 7

Meeting Time: 8:30 a.m.

Distance: 6 miles

Difficulty: Moderate

Our first Mount St. Helens cross-country ski adventure! Beginning at Cougar Sno-park, we will travel to Red Rock Pass and then backcountry ski the Kalama Ski Trail and discover who lives in this wintry forest.

June Lake Snowshoe

March 14

Meeting Time: 8:30 a.m.

Distance: 7 miles

Difficulty: Moderate

This is one of our most popular guided snowshoe adventures. This round-trip snowshoe takes you up to the remote and peaceful June Lake on the snowy flanks of Mount St. Helens.

Goat Marsh Snowshoe

March 21

Meeting Time: 8:30 a.m.

Distance: 7 miles

Difficulty: Moderate

This new adventure will take us to a beautiful and remote location where a research area was established in 1974 to preserve the world's largest Noble Fir, 276 feet high. The Goat Marsh Natural Research Area contains the second highest biomass-per-acre forest in the world.

MOUNT ST. HELENS VOLCANO NATURALIST PROGRAM

Winter - Spring 2015



The Volcano Naturalist Program provides in-depth training on the ecology, geology and history of Mount St. Helens in exchange for a commitment to volunteer at Mount St. Helens. This is your opportunity to become part of the dynamic landscape of Mount St. Helens!

COURSE DETAILS

February 11 - May 13

Wednesdays 6 - 9pm

Classes are held at Gifford
Pinchot N.F. Headquarters in
Vancouver, WA

-Remote classes also held
at the Centralia and
Morton campuses of
Centralia CC

PLUS three weekend field
trips

COURSE TOPICS

Biological recovery
Local ecology
1980 eruption
Interpretation
Wildlife tracking

Bird and plant identification
Social impacts of 1980 eruption
Mount St. Helens geology
Much more...

COURSE FEE (\$225) INCLUDES:

60 hours of training by Mount St. Helens experts
Local natural history books
Supplemental course materials
Certification as Volcano Naturalist after 60 volunteer hours
Refreshments



Apply online before Friday, January 30th at

mshinstitute.org

or contact Amy Tanska:

atanska@mshinstitute.org -- (360) 449-7826

Continuing education hours available for WA state teachers



for the greatest good

More Information

Field Notes: Everlasting Wilderness continued from page 1

But that summer evening, after zigzagging up through the backcountry's blast-flattened forests, I finally stumbled upon a compass. There, at my feet, blooming undisturbed in the rain-patted ash, was a four-foot-wide clump of pearly everlasting, a flower that once bloomed all over Spirit Lake. Like a ghost returned from the forested

past, the tall-stemmed wildflower illuminated its small patch of earth with creamy blossoms flaming with failing sunlight. The narrow, spearlike leaves glowed a soft green. Each stem terminated in a fist of flowers. Nothing grew within two feet of the plant, which appeared about three summers old. I could tell the plant's approximate age

because scattered below the upright stems were dead ones—the withered skeleton of the previous summer. And below those were others, and still others, fanning out in matted rags across the dark ash.

Here was something I could understand. Pearly everlasting was one of the last wildflowers I saw at Spirit Lake before the eruption. I had sketched it, picked it, dried it. I knew its shape and size, could recall the exact places where it had bloomed—and here it was again. I looked south, east, and north at the sunlit Cascade mountains I had known since childhood, four alpine islands in an ocean of temperate green foothills. Volcanoes. I stood next to the everlasting as it shook slightly in the wind, and waited for the last bit of light to abandon the land.

Like many wildflowers at Spirit Lake, pearly everlasting (*Anaphalis margaritacea*) is a perennial herb that rises after each snow melt. Its Latin name, *margaritacea*, means “pearly” and describes the small, beady flowers that are composed of white papery “involucral bracts” instead of petals. The bracts encircle the tiny yellow florets containing a hundred thread-thin seeds. If picked before they mature, the blossoms—bracts and all—remain intact indefinitely when dried, hence the plant's name. I thought of the everlasting flowers I had dried before the eruption. They had kept their shape and scent for years until I forgot about them. Where were those flowers now?

Pink light moved up the first of the four Cascade mountains encircling me. The shortest, youngest, and most violent, for 40,000 years this volcano had pummeled the land where I stood with searing winds, ash, and pumice. Light struck one of its old lava domes. It was the peak closest to me, a hundred beats of a

raven's wing away. Gusts shook the lake's surface. Bats joined the nighthawks to feed. I counted the stems of the pearly everlasting beside me: nineteen.

Although it's common in North America and northeast Asia, no

one has paid much attention to pearly everlasting. Nineteenth-century plant collectors Thomas Nuttall and David Douglas ignored it. Thoreau considered it the “artificial” flower of September pastures, and American naturalist Neltje Blanchan asked, “Who loves it?” She denigrated the wildflower as “stiff, dry, soulless, quite in keeping with the decorations on the average farmhouse mantelpiece . . . the most

uncheering of winter bouquets.” The

species is so common it has gathered many names over the years, including Cottonweed, Cudweed, Everwhite, Lady-Never-Fade, Life-Everlasting, Silver Leaf, Moonshine and Poverty-Weed. At the turn of the century, the wildflower reached its pinnacle of usefulness as the principal flower in funeral wreaths. By the middle of the twentieth century, botanists warmed slightly to the roadside flower. Lewis J. Clark called everlasting a “bright-faced little wildling.” Northwest wildflower expert Elizabeth Horn likened pearly everlasting to the Alps' famous edelweiss, and botanist Leslie Haskin wrote in 1949, “Each individual blossom is a delicate study in soft, pearly shades . . . The whole effect of the arrangement is like that of a half-opened white water-lily.”

That evening on the ridge, at my feet, the illuminated blossoms were glowing cold, swaying in the wind, shining whitely like tiny roses. A plane soared over the lake basin, then disappeared west down the Toutle River. Behind me, the backcountry lakes were jammed with logs, steeped in night. Before me, the peach glow hummed: light was leaving that first mountain.

Many Northwest tribes have neither a name nor use for pearly everlasting. On the Olympic Peninsula, the Quileutes used the plant in a steam bath for rheumatism, but the Makah forbade their children to play with it because it caused sores. Pearly everlasting can't be eaten like wapato, camas, or wild ginger. It has no berries to rival those of huckleberry, thimbleberry, Oregon grape, or even salal. It lacks the medicinal properties of Pacific yew or cedar. Its blossoms wax sallow next to purple penstemon or orange columbine.



Pearly Everlasting along the Harmony Trail in 2011

Continues on next page

However, over the last century, as the Northwest's woods have been burned, logged, and sliced by roads, pearly everlasting has been useful in one regard: as an erosion-controlling colonizer. Because of its "weedy" properties—vigorous growth, prodigious seeds, and resilience to extreme conditions—pearly everlasting has often been one of the first plants to revegetate a clearcut or burn. Within months of fire or logging, pearly everlasting will sprout in a sunny patch and, along with fireweed, brighten the spaces between the blackened snags with tall, waving stems loaded with blossoms. By autumn, the two will compete to litter their surroundings with seeds so light they float on the faintest updraft.

Light left the second Cascade mountain—a narrow cone that trembled from time to time with shallow earthquakes. Only fifty miles west of its summit, thousands of people in the Portland metropolitan area were finishing dinner at this moment, washing plates, putting children to bed, thinking of anything but sulfurous fumes rising from one of its warm vents. Pearly everlasting flourished at that mountain, too.

When Mount St. Helens erupted in 1980 it exploded sideways, knocking down thousands of acres of forests. As a result, mountainsides that once held cool, shaded forests were now as sunny and exposed as any clearcut or burn. This seemingly lifeless terrain was inhospitable for many deep-forest species, but for pearly everlasting it was a vast new land upon which the flower could scatter its progeny. Along with fireweed, lupine, thimbleberry, and groundsel, everlasting was sprouting in the blast zone within three months of the May 18 eruption.

Pearly everlasting grew profusely near my family's cabin. It also lined the roadsides of Highway 504 like beach foam lapping against the conifers, edging the highway in creamy-white all the way to the highway's end at the timberline parking lot. This was a plant that loved sunlight and didn't care how it obtained it. No wonder it was prospering here, atop a windblown ridge.

As a "generalist," pearly everlasting was well equipped to reinhabit Mount St. Helens' harsh land. A tough opportunist, the adaptable wildflower wields silver-green leaves whose color deflects the blast zone's intense solar radiation. From stem to leaf tip, the plant is covered in tiny white hairs that trap heat during freezing subalpine nights. Its tenacious roots and rhizomes knit themselves so tightly into the pumice soil no gust can extract them. Most importantly, the plant is able to sprout from root fragments, and its feather-light seeds catch the blast zone's winds to colonize vast distances. It is a wildflower that thrives on disaster.

Shadows moved up the third Cascade mountain. Like the others, that volcano had erupted frequently and violently for thousands of years. It, too, could blacken the sky in moments with stinging, suffocating ash. But pearly everlasting grew there, too.

Five years after the eruption, pearly everlasting was the most common wildflower in the blast zone. The flower swept over the landscape with the same abandon as the eruption itself, clinging to eroded cliffs, loose pumiceous soils, and log-jammed hillsides. But while the horizontal eruption was dramatic, immediate, and televised around the world, everlasting's quiet, seasonal advance transpired with little acclaim. Only scientists noticed it was improving habitat for other living things by providing mulch for the volcanic ash, shade and food for insects and rodents, and an anchor for other seeds.

The cold began to cut through layers of wool; the wind howled over rocks. My eyes teared. Below, Spirit Lake's giant log raft—all that remained of the forests surrounding the lake—was breaking up. The raft was created when the volcano collapsed into the lake, causing a giant wave that washed all the trees into the water. Now, pushed by wind, the massive raft was moving, log by log, to the lake's other end. It was time to go back to camp. Only a little light remained.

As pearly everlasting reappeared in the blast zone, so too did the mountain's other flowers. As I stood on the ridgetop, I noticed tangles of fireweed five feet high. Beyond them rustled meadows of pasqueflower, Indian paintbrush, and false-hellebore. Shrubby willows and alders drew green spheres on the brown slopes. Huckleberry shrubs proffered tiny blue berries. Young noble and silver firs rose up in triangular green islands, fifteen feet high. Coyotes who had survived after the eruption on little besides insect carcasses and ash now had fragrant wild strawberries to feast upon. The trail we had taken to the ridge was littered with strawberry-studded coyote scat.

I looked up: one star. I rubbed my nose: ice. Then I looked at the volcanoes: nothing. The everlasting clump, too, had gone dark. I bent down and buried my face in its flowers to inhale their beeswax fragrance. The drab pearls in my palm were a tunnel to the inhumed past—when Norway Pass was dark and cool; when the mouth of the Toutle River sang under its burden of snow; when Spirit Lake, clear of its log raft, reflected at night clouds of stars.

I released the beads and the plant swung back. I was shouldering an old loss like a chunk of wet firewood, but at dusk on the ridge east of Mount Margaret I paused beside a flower some call a weed, and rested.

And when coyotes howled around our camp at midnight, I climbed out of the tent to look at the stars. The lake's logs had disappeared west, disclosing its east arm—a huge, flat path of sparkling obsidian. I gazed up at the sky, then at the same image below: there were the stars, clouds and clouds of them, tiny ice-white flecks in the lake's black waters. The last time I had seen them, the lake was 200 feet lower, and hundreds of trees had crowded its shores. Now it was higher and wider and could accommodate more of the heavens. Thousands of stars floated below, constellations beyond my comprehension. The coyotes' cries drifted for miles across the broken timber. Lost in the galaxies, I took one wide look at the dark land around me. So this was the blast zone.

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GeoGirls at Mount St. Helens

Image courtesy of CVO/USGS,
by Mike Doukas, Julie Griswold



Image courtesy of CVO/USGS, by Siebert Lee

A geology and technology field camp for girls at Mount St. Helens volcano

Who: Girls graduating from 7th and 8th grade

When: August 3-7, 2015 - 5 days and 4 nights

Where: Mount St. Helens Science and Learning Center,
(dropoff and pick-up in Vancouver, WA)

GeoGirls explore the volcanoes in their backyard, the hazards they pose to human populations, and the technology scientists use to monitor them.

Activities

- Lessons and demonstrations by scientists and experts
- Hands-on experiments
- Field trips to sites around Mount St. Helens volcano
- An overnight camping experience near Windy Ridge
- Focused team projects with a real scientist
- Project research area choices: earthquakes and seismology, glaciers and water, ground deformation, or lava and ash
- A group volcanic crisis "mission" that builds on concepts learned throughout the week

Registration: Spring 2015

Cost: TBD (\$0-\$400)

For more info contact:

Kate Allstadt: kallstadt@usgs.gov

Abi Groskopf: agroskopf@mshinstitute.org



On the last day, GeoGirls tour the U.S. Geological Survey Cascades Volcano Observatory, meet the scientists who actually monitor the Cascade Volcanoes, and create a short video and website about their week to share with family and friends.



More Information

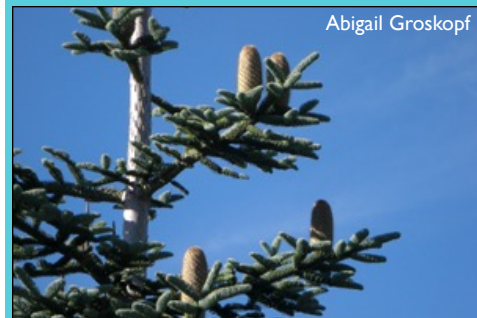
**Mount St. Helens
Climbing Permits on
Sale at 9:00 a.m.
PST on February
2nd, 2015**

GeoGirls is a week-long field camp for middle school girls. Mount St. Helens is a natural laboratory to inspire enthusiasm for earth science in middle school age girls - an age when girls typically lose interest in science. Girls will learn about the volcanoes in their backyard, the hazards they pose to human populations and the technology scientists use to monitor these volcanoes! Mentored by Cascades Volcano Observatory researchers and Mount St. Helens Institute staff, girls will tour the mountain, conduct a 2-day research project and will work with mentors to document their activities scientifically and build a website about it to share with family, friends, and classmates. This program is designed to introduce young women to careers in geology and offer the tools and inspiration for them to be successful.

Species Spotlight

Noble Fir (*Abies procera*)

Noble Fir is a large true fir that grows at middle elevation mountains in Washington and Oregon. Mount St. Helens is the center of Noble Fir distribution and hosts the largest known specimen at the Goat Marsh Research Area. As roadside signs in December indicate, Noble Firs are often used as Christmas trees due to their beautiful form, long keeping and strong branches. Like all true firs, Nobles have upright cones which fall apart when mature (as opposed to falling off the tree). Nobles have hockey-stick shaped needles that are blue-green above and have white (stomatal) bands below. The bark is often covered with resin blisters.



Abigail Groskopf

Noble Fir cones

Landscapes and Music

By Ray Yurkewycz, Operations Director

There are few connections in life so strong for me as the tie between landscapes and music. A life event associated with a particular location... an inspiring landscape that dictates its own soundtrack... the music native to a region... the musical notes seem to emanate from the very earth beneath one's feet.

My first links between music and place were established in my life in high school, the most important of which occurred as a result of my dream trip "out west." Growing up in Chicago and having never travelled further than Minnesota, I dreamed of the mountains. I read countless books and had built their majesty to enormous heights in my head. A summer trip with my aunt and cousins which took us to Utah, Wyoming and South Dakota far exceeded my lofty expectations. I returned to the Midwest changed for good and yearning for my next opportunity to return to the West. Since I couldn't just jump into my parent's Dodge Spirit for a long weekend getaway, I went to the library in search of music that would take me back there. I came upon Neil Young's "Harvest Moon" album. This acoustic album with Ben Keith's pedal steel guitar and the beautiful harmonies of Emmy Lou Harris, James Taylor and Linda Ronstadt put me smack dab in the middle of [Grand Teton National Park](#) listening to the track "[Unknown Legend](#)." Could I identify with the middle-aged main character? No, but it was like reading a book where I knew the setting. To this day, much of Neil's music fits these western landscapes.

I was in awe of how music could so viscerally transport me to another place. As time passed and I was cognizant of the potential, more and more of these connections were made. After graduating from high school, a best friend and I visited our family fishing spots in Northern Wisconsin. We were fishing addicts and were excited to share these important places where we had adventures and summer time crushes. [Tom Petty's "Wildflowers"](#) played the whole trip and there's no way I can't think of [Lower Kaubashine Lake](#) when I hear any of these songs from this great album.

Within a few years, I found my way to Montana. Talk

about an inspiring landscape. Many adventures were had and many songs provide the soundtrack for my memories. [George Winston's "Valse Frontenac"](#) and [Sturgill Simpson's "Long White Line"](#)—remind me of [Virgelle, MT](#). I saw Austin roots rockers and inheritors of The Band's legacy, The Gourds, at The Mint Bar in [Livingston, Montana](#). Their song, "[Shake the Chandelier](#)", reminds me of that raucous, floor-shaking evening of dancing in an old-school western bar.



Virgelle Mercantile in Virgelle, MT

Somehow, though, in my 8 years at Mount St. Helens, no song, no sound has made a connection with the volcano. Maybe I just haven't found it yet, maybe the mountain makes its own music that I don't recognize, and maybe I need to write the song. Do you have a Mount St. Helens song? If so, share it with us! Send me an email at ryurkewycz@mshinstitute.org, or post it to [our Facebook page](#) and let us know why that song is connected to Mount St. Helens. We

look forward to listening. Meanwhile, here's a "[Volcano](#)" song for your listening pleasure.

Ray's Book Picks

"A Jockey's Christmas" by Willy Vlautin

This is not a typical book review. This is not a book! It's a spoken word short story... with some acoustic and pedal steel guitar in the background. I'm sharing this because it has become a Christmas tradition for my wife and me, much how [Arlo Guthrie's "Alice's Restaurant" is paired with Thanksgiving](#). This story, however, is less funny. In fact it's kinda depressing... Happy Holidays! But wait! Don't give up... it's a truly satisfying listen, if not for the thin-skinned. Award winning author and musician, [Willy Vlautin](#), paints the story of a down and out ex-Jockey name J.D. travelling to visit his family over Christmas. It's kinda like "It's a Wonderful Life" set in Reno in the 1990's. During his Christmas stay, he makes the wrong decisions left and right. Even fate seems to get the best of him. The keening pedal steel and finger picked acoustic lend to the mournful mood. But this is a Christmas story. Who ever heard of a Christmas story with an unhappy ending?

