

Trail

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Beyond its geology, rare plants and isolation from paved roads, it's wildfires that mark the Kalmiopsis. Buffeted by strong winds off the Pacific and frequently struck by dry lightning, three of the largest wildfires in state history have ignited and burned here since just 2002. That includes the Biscuit Fire, which at 500,000 acres is the second-largest blaze in Oregon since 1900.

(Fun fact: The Biscuit Fire was originally known as the Florence Fire, after the creek where it ignited, but the Coast town of Florence complained about the giant wildfire's name harming tourism, so it was changed to Biscuit after the fire merged with a smaller blaze called the Sour Biscuit Fire.)

The constant wildfires might have caused the wilderness' trails to disappear if not for a chance visit from Gabe Howe and Jillian Stokes in 2006. As a young couple, they attempted to reach the remote upper Chetco River but found horrendous trail conditions — tens of thousands of fire-burned trees had buried backcountry pathways. Yet they were so enchanted by the region's wildness they started a nonprofit called the Siskiyou Mountain Club to keep the trails open. Today, now husband and wife, their organization maintains hundreds of trail miles in southwest Oregon and northwest California, employing crews of volunteers, paid interns and staffers that log long hours clearing trails with cross-cut saws, loppers and the other non-motorized tools used in wilderness.

It's no longer a disastrous bushwhacking adventure to reach places like the Upper Chetco. And that's a good thing for the next young couple that wonders into the Kalmiopsis, said Howe.

"If you're in your mid-20s and courting someone who you want to merrily, it's the place you want to bring them," Howe said in the latest episode of the Explore Oregon Podcast.

You can listen to the entire episode of Gabe and I talking all things Kalmiopsis — including our favorite routes and the area's history, geology and the best time to visit at [StatesmanJournal/explore](https://www.statesmanjournal.com/explore). In the meantime, here are the 10 best hikes and backpacking routes Howe and I recommend to whet your appetite for wild.

For questions about the Kalmiopsis Wilderness or to volunteer or sign up to work for the Siskiyou Mountain Club,

email Gabe Howe at: gabe@siskiyoumountainclub.org.

Vulcan Lake

The Star Trek-themed name might well have been inspired by the appearance that this lake inhabits a different planet.

Emerald green and sitting in a phantasmal basin of buff-orange serpentine bedrock, Vulcan Lake is surrounded by a virtual desert of stunted and bizarre trees in one of the most unique landscapes you're likely to find.

The drive, beginning in Brookings on the Oregon Coast side of the wilderness, is rough but the hike isn't too hard at just 2.8 miles round-trip. In the podcast, Gabe talks about other stunning routes in the area, along with explaining why the geology creates the bizarre landscape around Vulcan Lake.

Babyfoot Lake

A cute little mountain lake nestled on the opposite side of the wilderness as Vulcan. Babyfoot is closer to the Grants Pass and Illinois Valley side of the wilderness and makes for a nice hike with kids, or an easy little taste of the wilderness without getting in too deep.

Like everything in this area, the lake has been impacted by the wildfires but it remains a green little oasis good for swimming or even hauling down an inflatable boat. The hike is less than 2 miles to the lake, but a fun 5-mile hike surrounds the lake with big views across the wilderness.

Illinois River Trail east

Probably the best-known route in Kalmiopsis, the Illinois River Trail is a 30-mile route that travels high above one of the West's wildest rivers, only occasionally dropping down to the jade waters of what local whitewater rafters call the "Illy."

A rough road leads to the trailhead, but options beyond abound. An easy hike travels to the rare wildflowers of York Creek, while a longer route — great for an out and back backpack — visits Pine Flat. A very challenging 20-mile route is also possible on the east side of the trail.

Illinois River Trail west

The side of the trail closer to Gold Beach and Agness — on the Coast — isn't quite as dramatic as the other side but it

does feature a route to two utterly stunning creeks and bridges.

The trail passes over Indigo and Silver creeks, two wild, crystal and dynamic streams that cut through the wilderness before dropping into the Illinois River. The bridges are modern marvels that span high cliffs.

Snow Camp Lookout

A rentable fire lookout located just outside the wilderness with a view that stretches all the way to the ocean. The old version of the lookout burned down in the Biscuit Fire, was rebuilt by the Sand Mountain Society, and then almost burned down again in the Chetco Bar Fire in 2017.

The lookout offers some nice contrasting views of the 20-year-old Biscuit Fire scar and the most recent Chetco Bar Fire scar — an interesting way to compare how forests regenerate post wildfire.

Pearsoll Peak via the Kalmiopsis Rim Trail

The tallest peak in the Kalmiopsis Wilderness offers views all the way to the ocean on a clear day and features a fun old fire lookout that adds to the historical appeal of the area. Beginning from the Onion Camp Trailhead area, the pathway winds along the high ridge between the Illinois and Chetco rivers and offers access to the top of Eagle Mountain and other high ridges along the Kalmiopsis Rim Trail to Pearsoll Peak Trail.

Illinois River campsites and beaches

The Illinois River corridor just outside Grants Pass and Selma offers a lot of the highlights of the wilderness on a quicker and more accessible trip.

From the small outpost of Selma, follow Illinois River Road past places such as the Siskiyou Field Institute (a great place to take educational classes about the area), and then to hikes such as Kerby Flat, Snailback Beach and Horn Bend and campgrounds such as Store Gulch. There's excellent swimming holes to be had but sadly, the area gets quite rowdy on hot summer days so visiting in spring is recommended.

Upper Chetco River

The first major project that the Siskiyou Mountain Club undertook was reopening trails that led to the Upper Chet-

co River, one of the clearest rivers on earth. After decades of wildfire and neglect, thousands of trees had fallen across the trail and new brush had grown up through their tread, leaving to borderline impassable conditions.

Over the last decade, SMC and its corps of volunteers reopened two main routes that access the upper Chetco and its glorious swimming holes. The first one is the 26-mile Trans-Kalmiopsis Route, which travels multiple trails from Babyfoot Lake to Vulcan Lake or visa versa.

The other route, the 50-mile Lilla and John Leach Memorial Loop, also starts at Babyfoot Lake and uses multiple trails to drop down to the river and climb back up.

Windy Valley

A fun little secret that's also just outside the wilderness proper, in the Snow Camp Lookout area outside Brookings. From the Snow Camp Trailhead, follow the trail a short ways past views of the ocean and lots of insect-eating pitcher plants. Instead of climbing up to the lookout, stay straight and you'll access a peaceful little grassy valley where you can hang out or pitch a tent. All totaled it's less than 5 miles of hiking.

It makes a fun hike to pair with the Redwood Nature Trail — one of the few places to see old-growth redwoods on Oregon soil — that's found on the drive out this way off North Bank Chetco River Road.

Madstone site/Little Chetco River

This is one of the most remote places in Oregon, said Howe, deep in the wilderness near the Little Chetco River.

It's the site that was once occupied two Pacifist brothers who were hiding out from the draft for World War I and it's a tale well told in the book "Madstone" by veteran Oregon journalist Paul Fattig.

Howe says in the podcast that listeners will need to do a little homework to find this wild space, but that with a good map and research, they can make it happen.

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Hike

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Snow changes when it hits the ground

Snow-covered trees lined our path upward and a white blanket covered the shrubs and ground.

One thing is certain, the story of snow doesn't end in the sky. Snow accumulates. It builds up. But more than that, it transforms. Snow on the ground is metamorphosed. Like a caterpillar in a chrysalis, snow crystals don't retain their inflight shapes, but become something completely new.

Curious, about halfway up the hill, Christina pulled out her shovel and started to dig.

Digging a snow pit, reveals a snow profile — a record of the "life history" of the snowpack, its forms, and stability.

Christina pointed out the layers in our snow profile by running her fingers down from the top to the bottom.

At the surface, the snow was low in density—the ice crystals still retaining their intricate shapes. Further down, the density increased. Instead of snowflakes, the older snow was transformed into rounded crystals that bond together—through a process known as sintering — to create a cohesive stable snowpack.

"There is a low temperature gradient in the snowpack," Christina explained. That is what forms the rounds.

If the temperature gradient was higher, something called facets would form instead of rounds. Christina described the facets as being like sugar crystals with sharp, point edges that don't stick together. Facets are a sign of destabilizing snow — bad news for winter recreationists.

Fortunately, stable snow is common in the Cascades, compared to other places in the U.S.

In continental mountain ranges, like the Rockies, temperatures are far below freezing, and the air is dry resulting in a shallow, far less stable snowpack.

The Cascades are in a maritime snow climate. Relatively warm moist air from the Pacific moves inland — sometimes on large atmospheric rivers — and is pushed up over the Cascades where it cools and falls as snow right around freezing. The result is a deep, wet snowpack.

Trailhead: Potato Hill Sno-park

Distance: Anywhere from 2.5 miles to 7.4 miles

Elevation Gain: about 800 feet to 1400 feet

Details: Sno-pass required. No restroom. Parking space is limited.

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Assured of the stability of the snowpack, onward we crunched.

How wildfire impacts snow

About a mile up the road, the scenery changed from snow-covered forest to more open terrain. On a rise to the left of Christina and I, a few blackened trees — survivors from the famed B&B Complex fire of 2003 — stood out in stark contrast to the white sky.

Observing snow in burnt forest areas was one of the ways Christina first became interested in studying snow. In British Columbia, one of her favorite recreation areas was burnt. Afterward, she noticed that the snowpack was melting out earlier than before the fire.

Later, Christina was able to work with Dr. Kelly Gleason on a research project that explored the phenomenon.

We headed into the burn area to get a closer look.

"See how this bark is all charred," she said pointing to a blackened tree. "As soon as it starts blowing all this black particulate matter — little bits of black carbon — distribute across the snowpack," she said. "And since it is essentially a black body in this white snow, it attracts the shortwave radiation coming from the snow — heating up your snowpack."

In other words, "It reduces the albedo of your snowpack," Christina exclaimed emphatically.

Albedo is the reflectivity of a surface to shortwave radiation from the sun and is associated with lighter surfaces like snow and ice. Dark surfaces, in contrast — like the charred particles being blown from a burnt tree — reflect little and absorb a lot. Transforming shortwave radiation into longwave, or heat.

Christina dug into the snow near our blackened tree. Despite the B&B fire being over 10 years ago, the snowpack was riddled with small black carbon particles — each with a propensity to heat things up.

The results of the Gleason study are alarming — burn areas are melting a lot earlier than unburned forest — on average, 23 days earlier. And the effects are not short-lived.

Also, not inconsequentially, as fire size, intensity, and frequency increase in the Pacific Northwest and the fire season lengthens with climate change, blackened trees will also become more common.

Eyes fixed on the blackened particles, with solemnity, we continued through the burnt forest.

The importance of snowpack

Unfortunately, black carbon is only the tip of the iceberg when it comes to the effects of climate change in the Cascades.

Climate change is causing shifts in both the quantity and timing of snowfall. Many places in the western U.S. are seeing a decline in snowpack and a shift to earlier spring snowmelt — trends that are expected to continue.

These shifts are incredibly problematic from a water resource standpoint.

"Snowpacks are essentially a natural reservoir," Christina explained. "Throughout the winter our snow accumulates, and in the spring and early summer, the snowpack melts and released water into our waterways." Snow makes water available when we need it the most.

According to Christina, "In the western U.S., it is estimated that about 70% of our runoff from mountainous areas originates as snow."

Our dependence on snowpack cannot be overstated.

Measuring the snow

Maybe a quarter mile from where we turned off the road, Christina and I reached a "viewpoint." On a clear day you can see Three Fingered Jack from here. As it were, we could barely make out the outline of Lost Lake below us. Not only that but the wind had picked up and the snow was coming down hard.

It was the perfect time to take a snow depth measurement.

A big part of Christina's Ph.D. work involves improving models of snow distribution in mountainous and remote places to better understand water resource availability during the year. To do this work, good reliable snow data is needed.

SWE is the gold standard for snow data. SWE is snow water equivalent — the amount of water contained in the snowpack — and is based on snow depth multiplied by snow density. However, measuring SWE is not easy to do in the field as it involves heavy equipment that most people don't want to carry in their packs.

Therefore, Christina's research uses Community Snow Observations (CSO) taken by citizens scientists to supplement the more rigorous SWE data. Getting involved is easy and fun — you just need some snow, an avalanche probe, or even a ruler, and a place to put the data to participate.

To demonstrate the process, Christina whipped out her probe and stuck it into the snow until it touched the bottom. After a few repeat measurements (3-4 is fine), she calculated the average depth and entered it into the Mountain Hub app on her phone.

To date 28,521 observations have been taken by citizen scientists through CSO. To get involved yourself visit <https://communitysnowobs.org/>.

Putting the avalanche probe away, Christina and I turned and followed our tracks back to our vehicle and headed home.

Spending time with Christina reminded me that there is so much to notice and appreciate about snow — from its life-sustaining function to its many shapes and forms. So, next time you are in the mountains catch a snowflake. Imagine all it will do and become.

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