

The Biscuit Fire Brewer's Spruces

By David Pilz

My friend, George McAdams, and I could see the lightning strikes in the distance as we drove south on I-5 over the Siskiyou passes of southwestern Oregon. Little did we know then that those strikes were starting the largest wildfire in recorded Oregon history. We were driving to an annual week-long wilderness campout, and this year we were headed for a camp on the Chetco River

Over the next two days, the Biscuit Fire burned through the area so intensely that all the vegetation was consumed.

in the Kalmiopsis Wilderness Area of the Siskiyou National Forest. Our destination was the confluence of Slide Creek and the Chetco River about 3 miles (5 km) SSW of Pearsoll Peak (42° 17' 57" N, 123° 50' 43" W).

It was Saturday, July 13, 2002. We camped that evening on the Illinois River near the Boy Scout McCaleb Ranch and drove up to Chetco Pass the next morning on a road marked "HIGH CLEARANCE – 4 WHEEL DRIVE." As we prepared to hike in, we watched smoke plumes rise in the Wilderness Area several ridges away.

The Kalmiopsis Wilderness Area, named for the endemic ericaceous plant *Kalmiopsis leachiana* Rehder (Kirk-

patrick et al. 1994), is one of the wildest and most remote portions of the geologically and botanically diverse Klamath/Siskiyou Mountains that straddle the California/Oregon border (Wallace 2003). I had camped in various portions of the wilderness at least 10 times over the previous 20 years, often also with another camping buddy, geographer John Cloud. We were looking forward to swimming in the cleanest river in the continental United States; the entire upper river flows through the wilderness.

As a former forest fire fighter, I was intrigued by the "distant" plumes, but we hiked in and set up camp, little knowing what would follow. Several months earlier, I had watched an Oregon Public Broadcasting Special about wilderness therapy for disturbed teens. That evening, sitting around our campfire, we watched a line of about 15 exhausted and bedraggled teens trudge past our camp. When the counselors approached us, they said that the group had climbed an adjacent ridge on their sojourn and had to turn around because a forest fire had loomed. The unfortunate kids had hiked back down and camped near us that night after having traversed twice the distance they had planned that day. They hiked out the next morning, and George and I would spend the next five glorious days hiking and swimming in a veritable paradise.

During the last two days of our visit, smoke filled the valley each afternoon and we discussed hiking out early. It

was so nice, and we had come so far, that we chose to stay. On Saturday morning, July 20, at the crack of dawn, we started hiking up to the ridge. The steep trail led through dense madrone forests with thick ground layers of tinder-dry brush and leaves. The air was already smoky and we encountered squirrely winds. My fire-fighting experience told me we were hiking through a death trap because there were no escape routes. George kept wanting to take breaks until I explained that squirrely winds are a common phenomenon caused by updrafts on the edge of forest

fire plumes. We drove out without incident, the last individuals to enjoy this pristine landscape before it torched. Over the next two days, the Biscuit Fire burned through the area so intensely that all the vegetation was consumed.

Brewer's spruce

The Brewer's spruce or weeping spruce (*Picea breweriana* S. Watson) is a lovely conifer that is endemic to the ridges of this region. Previously, the American Conifer Society *Bulletin* published a personal tale of mine entitled "Confessions of a Conifer Seedling Enthusiast" (Pilz 1989; see excerpt on page 8). In that article, I had described my guilt about unnecessarily felling a venerable ancient specimen of this species while working as a member of the chain-saw squad on a fire crew that fought the Hog Fire in Northern California in 1977.

My remorse evolved into several decades of growing unusual conifers from seed. One of the biggest seedlots I acquired was from Brewer's spruce cones collected in 1985 from the Hungry Hill timber sale just outside the boundary of the Kalmiopsis Wilderness Area near Baby-

Here at the Onion Camp Trailhead, the fire's effect is obvious. Three Brewer's spruce seedlings were later planted near this site.



David Pilz

From “Confessions of a Conifer Seedling Enthusiast”

An excerpt from the author’s Spring 1989 Bulletin article

Our job was to continue building a fire break down the ridge from where the night crew had stopped. Truth to tell, there wasn’t much for the chainsaw squad to do. Brush generally grows thicker in creek bottoms than on dry ridge tops.

We were supposed to drop the dead, dry snags that might spread sparks and fire down the other side of the ridge. We came upon an elder Brewer’s spruce and, out of boredom, we decided to cut it down. Although it was not particularly tall, it was three to four feet in diameter near the base, and obviously very old

and venerable. We had Stihl chainsaws with 24-inch blades, and in order to make the backcut, we had to cut from both sides. We took turns. We reveled in our skills.

The tree finally fell. For no good reason. The fire never approached the fire line we built. That elder spruce wasn’t a fire-spreading threat; it was alive and green. Our supervisor couldn’t have cared less whether we cut it. We cut it down for the challenge. At the time, I participated out of camaraderie. Since then, I have regretted it.

— David Pilz



David Pilz

foot Lake, about 5 miles (8 km) SE of where we would camp in 2002. From that seedlot I grew thousands of seedlings and distributed them widely. I also provided thousands of seeds to the Conifer Society’s Seed Exchange, so many readers might now have some of these trees growing in their collections.

In my makeshift outdoor nursery in western Oregon, these seedlings grew *very* slowly. Indeed, their mode of germination speaks volumes about their adaptation to summer droughts and to the well-drained, nutrient-poor, metamorphic soils of their native range. I typically germinate my seeds in flats filled with three inches of vermiculite and transplant the germinants as soon as

they pop up. For most species this is no problem. But by the time the Brewer’s spruce seeds had poked above the surface, their rootlets had already grown to the bottom of the vermiculite and had curled around the bottom of the container. Obviously, they were adapted to seek deep soil moisture immediately. None produced more than cotyledon leaves and a bud the first spring, even though I watered them all summer long.

Return to ashes

By the summer of 2003, I still had six of the seedlings. These 18-year-old plants were only a foot (30 cm) tall, but they were bushy and had large, fibrous root systems. I thought, “What could be

more appropriate than to ceremonially plant them back into the Biscuit Fire area where their ancestors had grown?”

To that end, I contacted Pam Bode, the District Ranger of the Illinois Valley Ranger District of the Siskiyou National Forest. She referred me to Brian Watt, a forest silviculturalist. He kindly agreed to accompany me on a planting expedition, so on Saturday, October 25, 2003, I met Brian at the Illinois Valley Ranger District office. He, his wife, and their two dogs accompanied me up to the pass. We drove to the Wilderness trailheads of Babyfoot Lake and

David Pilz



David Pilz (at right in both photos) and Brian Watt plant, water, stake and fence the spruces in October 2003.

Onion Camp where we planted three seedlings at each location. Brian and I discovered that we both considered ourselves “dirt foresters,” as we had both spent considerable time in the field fighting fires and planting trees during the early portions of our careers. Although the season was late, the weather on the ridge was sunny, breezy and 80 °F (27 °C) – not ideal planting weather,

Although episodic forest fires are as natural to this region as death is to life, humans only experience short segments of the cycle of forest death and rebirth.

so we carefully watered the roots before, during and after planting. Fortunately, earlier rains had wet the soil fairly deeply, and two days later more rain and cooler weather arrived. We fenced the seedlings against possible animal browsing and wished them well.

Although episodic forest fires are as natural to this region as death is to life, humans only experience short segments of the cycle of forest death and rebirth. The landscape near the trailheads and in the wilderness was stark with burned trees. Salvage logging (hazardous tree removal) was already completed along the road and around the trailheads. I wanted to revisit the area surrounding the logged stand where I collected the cones in 1985, but the road was too rough for my vehicle and I did not have enough time to hike in. From what Brian said, and what I could see, the area where I had collected

the cones in 1985 had only experienced an “under-burn” so further seed collections might remain possible.

I heartily appreciate the role that the members of the Conifer Society play in conifer genome conservation. We all depend on populations of wild conifers for sources of new cultivars, and it has been my great privilege to associate with individuals who share a similar concern for maintaining natural habitats and supplementing conifer regeneration.

“Nature seems to have made some trees to serve man with endless uses, and others to hold the soil over vast areas, some to line riverbanks and some to shade the prairie and desert traveler. A few she made, one might say, for no other reason than to contribute to the higher things of life – to be extraordinarily beautiful, and very little else. And of these the Weeping Spruce is one.”

– Donald Culross Peattie, from *A Natural History of Western Trees*

References

- Kirkpatrick, Golda; Holzwarth, Charlene; and Mullens, Linda. 1994. *The Botanist and Her Muleskinner: Lilla Irvin Leach and John Roy Leach, Pioneer Botanists in the Siskiyou Mountains*. Portland, OR: Leach Garden Friends. 150 p.
- Peattie, Donald Culross. 1953. *A Natural History of Western Trees*. Cambridge MA: The Riverside Press. 751 p.
- Pilz, David. 1989. “Confessions of a

Conifer Seedling Enthusiast.” *American Conifer Society Bulletin*. Spring Issue. 6(4): 82-85.

Wallace, David Rain. *The Klamath Knot: Explorations of Myth and Evolution*. Twentieth Anniversary Edition. Berkeley, CA: University of California Press. 167 p. ▲



About the author: David Pilz currently works as a Forest Mycologist with the Department of Forest Science at Oregon State University in Corvallis, OR. He conducts research on the management and sustainable production of commercially-harvested forest fungi. An earlier career emphasis on reforestation, a long-term hobby of growing unusual conifers from native seed, and involvement with the issues surrounding the harvest of native yews for the anti-cancer drug Taxol have contributed to his interest in conifer seedlings and the Conifer Society.

Read more about the Biscuit Fire online at <http://www.biscuitfire.com/>.

GEE FARMS

Nursery & Landscaping

10 Acres of Container Plants

Conifers, Hosta, Ornamental Grasses, Perennials

We invite you to visit our display gardens and new water garden featuring many unusual and hard to find plants.

Family Owned since 1849

8:00 am till Dark – 7 days

Gary & Kaye Gee

14928 Bunkerhill Rd., Stockbridge, MI 49285

PH: (517) 769-6772 or 1-800-860-BUSH

FAX (517) 769-6204

Visit our Web site @ www.geefarms.com for our plant list