**Krummholz a.k.a. those crooked old trees in the alpine zone**

On a warm midsummer day, few places are as appealing as an alpine meadow with the sun shining overhead, a gentle breeze, and only the occasional island of small conifers to interrupt a colorful expanse of grasses and flowers. Yet the peacefulness of this meadow scene belies the age-old struggle for survival that these shrubby krummholz trees face when no humans are there to see it.

Krummholz is a German word meaning, literally, “crooked wood.” It describes conifers at the high-altitude edge of their range, where there is persistent winter snowpack. In Washington, krummholz trees are most likely to be subalpine fir, mountain hemlock and yellow cedar.

Far from the lush exuberance that their low-altitude brethren show, these trees are compact, contorted, and often prostrate along the ground, getting some measure of wintertime protection from the cold and dessicating winds. This position also allows them to spread by layering—sprouting roots along the branches that are in contact with the ground. These luxurious flowing skirts of branches and foliage, being dark in color, absorb heat in the spring and accelerate snowmelt, hurrying the start of the growing season and providing a warm and protective microhabitat for seedlings. These seedlings can then grow up alongside their parent trees—one reason that krummholz trees in alpine meadows are often found together in clumps. These “tree islands” often provide shelter and protection for other plants such as alpine blueberry that would otherwise have a hard time gaining a foothold in an exposed meadow.

Krummholz trees offer a perfect example of how plants respond to a harsh environment. This year, if you want to see krummholz trees, you may need to plan your hike for August or later. The very forces that have shaped these trees continue to exert their influence, as the trees wait patiently under many feet of slowly melting winter snow.

—Sylvia Feder

**Where to find krummholz**

**Hurricane Ridge.** The road to Hurricane Ridge begins at sea level in Port Angeles and ends above 5,000 feet in a sprawling alpine meadow with clumps of classic krummholz trees. This Olympic National Park destination provides a unique combination of short, wheelchair-accessible paths (some less than 0.5 mile) as well as more rugged walks and hikes.

**Gothic Basin.** Picture the essential elements of a resplendent alpine basin—tarns ringed by peaks, brazen wildflowers, strewn boulders and gnarled trees—and you’ve got Gothic Basin. You’ll see plenty of krummholz here amidst the classic alpine scenery. This pretty basin may well be the crown jewel of all the hikes off the Mountain Loop Highway.

**Blue Lake.** Half the fun of hiking this trail is the gorgeous drive on the North Cascades Highway and, of course, the scenery only gets better as you hit the trail. After winding through lowland marsh and forest, you’ll gradually gain elevation and bigger and better views of the northeastern Cascades. From the lakeshore, you’ll enjoy not only krummholz, but also a stellar view of the jagged Early Winters Spires and stately Liberty Bell.

*How long have these larches been dueling above Blue Lake? Photo by Kerry Kelley.*

*Cairn atop krummholz in Gothic Basin. Photo by Keith Hoffman.*