

Alpine Wildflowers And Their Roles In The Ecosystem

<p>Eye on the Environment By Anne Dahl President Swan Ecosystem Center</p>		
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By Anne Dahl, President
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The end of July and first of August are prime times for seeking out alpine wildflowers above 6,000 feet. Colorful gardens unmatched in any backyard grow on steep, north facing slopes and along the many small creeks and seeps of our high mountains—even in dry summers like we've had in recent years.

If events interfere with a trek to the high ridges of the Mission Mountains or Swan Range at peak alpine wildflower time, I feel cheated for the next 12 months. This summer I've been lucky.

The more I learn about natural ecosystems the more I realize each inhabitant offers something of value for some other resident. This year I'm trying to learn at least one value for each alpine wildflower I spot in the high country, beyond its eye-pleasing worth.

Of course wildflowers are a source of sustenance for hummingbirds, bees, butterflies and other birds and insects. Some biologists think paintbrushes and hummingbirds evolved together in a mutually beneficial way. The long flower tubes containing the sweet nectar are hidden among showy red bracts that attract the hummers.

As I started the climb above 6,000 feet the common red paintbrush *Castilleja miniata* was still in bloom in a few of the cooler spots. I found the alpine paintbrush *C. rhexifolia* higher up. It is the most brilliant of the species. The flowers are crimson, rose, purple or pink. I was buzzed by a hummingbird along the trail. But it sped by too fast for identification.

I reached 6,400 feet in a shady, wet subalpine forest. At the first seep I found hot magenta monkey flowers, seeming to cool their feet at the edge of a clear spring. Native Indians may have used the leaves as lettuce. Then in a meadow opening I spotted elephanthead *Pedicularis groenlandica* and death camas *Zigadenus elegans*. The elephanthead is grazed by elk in early summer. The death camas is well named, as even a small amount can kill you. But several Indian tribes used it as an athletic rubdown. Elephanthead has many reddish purple flowers, each with a curved snout, on a single stalk. Death camas is a lily with white or creamy star-shaped blossoms

Alpine Wildflowers by Dr. Dee Strickler is a good field guide to pack for plant identification because it is lightweight. Yet, to find interesting facts about our alpine flowers when you are on the recliner resting your feet, try the Lone Pine Field Guide Plants of the Rocky Mountains or the Peterson Field Guide to Rocky Mountain Wildflowers. I also found good information on the Web, pro-

vided by the Montana Native Plant Society.

Mouse on a stick, also known as windflower, has medicinal uses. This anemone has white sepals (no petals). There are several versions of anemone. I didn't try to key it out, but I think the one growing all over a steep east-facing slope may be *Anemone cylindrical*, although this species isn't included on the Flathead National Forest list of native species. I'll ask the botanist next time I see her. The cylinder shaped seed heads look like fluffy rodents stuck on top of a foot-and-a-half-high stalk, hence the descriptive common name. I found it growing at about 6,700 feet.

At this elevation I started seeing yellow columbine *Aquilegia flavescens* in full bloom. This graceful plant had already gone to seed at lower elevations. The columbine is always a pleasing sight wherever it is found. I've eaten the blossoms of columbine in salads. Kids like to bite the tips of the spurs to get at the sweet nectar. But guidebooks caution that the seeds are poisonous. Parts of the columbine have been effective for fending off head lice. And the plant has been used as an antispasmodic and for reducing or removing tumors.

Valerian lives up high and is another family of plants with many species. The one I saw growing amongst the other flowers may have been *Valeriana occidentalis*. It was a tall plant with clusters of many, tiny white blossoms arranged in a half-globe shape. Valerian is a common mild, sleep inducer. Elk and other hoofed creatures like to eat it. The cooked roots of some valerians are edible for people, but are poisonous when raw.

The native St. Johnswort *Hypericum formosum* that grows in alpine areas is a close relative to the common St. Johnswort *H. perforatum*, which is a noxious weed blooming this month along our forest roads. The common St. Johnswort is a known anti-depressant. The blossoms of our native version remind me of brilliant yellow stars, spurring off tiny explosions. Their sunny appearance is enough to cheer anyone up.

The purple vetch *Vicia Americana* in full bloom on the steep slopes just under 7,000 feet and the several species of lomatium, in the parsley family, which had gone to seed as I neared the ridgetop, are important food sources for bears. American Indians ate the vetch seeds, which are also eaten by white-tailed deer.

At a small saddle on the ridge I ran into a nice patch of buttercups *Ranunculus eschscholtzii*. Buttercup leaves, which remind me of small three-fingered hands, are eaten by deer, elk and pikas. Yet most buttercups are at least somewhat toxic.

Gentians have been used for centuries to improve digestion and stimulate appetite in people who have been ill for a long time.

There are many species of gentian in all colors.

The deep sapphire blue explorer's bog gentian *Gentiana calycosa* likes moist open sites in high basins and near seeps. It blooms in late summer and is one of my favorite alpine flowers. The leaves on the single stem are a rich, deep green that nicely offsets the erect, blue bell-shaped flower. The colors, seeming to emanate cool, are a refreshing sight on a hot day.

Most of the gentians I saw on this late July hike had not yet bloomed, giving me an excuse for another trek to the high slopes and meadows next weekend.