

WHEN PLANTS FIGHT BACK

DEFENSIVE STRATEGIES OF WILD VEGETATION BY ELLEN HOROWITZ

Two other hikers approached on the narrow, brush-choked trail. As I stepped back to give them room to pass, something needle sharp seemed to whack the back of my legs. Whirling around to confront what I thought were hornets, I instead saw that my “attacker” was a gnarly, spine-covered plant descriptively known as devil’s club. It was a species I knew well and had always tried to avoid. But in my haste to move out of the way, I overlooked it and suffered the consequences.

Plants can’t run but, like devil’s club, many put up a fight. Some have chemicals on their leaves or elsewhere that cause intense skin irritation. Others sport thorns, spines, prickles, and a variety of tiny, stiff, hairlike structures—all collectively known as spinescence.

No conclusive explanation exists for why these defensive mechanisms evolved. The long-held hypothesis is that they are meant to ward off plant-eating mammals. But that doesn’t explain why, for instance, deer happily munch on prickly wild roses and black bears eat poison ivy leaves.

Whatever the reason, the irritants and pointy parts of several plants can annoy or even injure campers, hikers, hunters, mountain bikers, and others who enjoy the outdoors. The secret to staying safe is to find these plants before they find you. To that end, here are several common plants that cause pain or skin irritation if they catch you off guard.

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GET THE POINT

Yucca

Descriptive names for this plant—Spanish bayonet, Spanish dagger, sword grass—speak volumes about its defense. Each leathery, sword-shaped leaf terminates in a sharp, spiny tip that can cut and puncture clothing and skin.

Because they are so big and distinctive, yucca are usually easy to avoid if you’re paying attention. But start to daydream or look up at an overhead raptor and a painful poke in the shin will remind you that danger lurks below. Hiking in low light or darkness can be especially hazardous in areas where yuccas grow.

Where: Central and eastern Montana in sandy or stony soils of open, dry habitat such as plains and badlands.

Prickly pear cactus

These cacti often form low-growing mats that make them hard to see and avoid. You’re walking along, feel the spine in your foot, then look around and see that you’re surrounded. Smart pronghorn hunters wear thick leather gloves and kneepads to avoid being pierced while crawling through sagebrush prairie. Just as painful, but harder to remove than the prickly pear’s spines (a type of modified leaf), are its thin, hairlike prickles that easily embed in exposed skin.

Where: Mostly east of the Continental Divide in grasslands and sagebrush steppes.

Hawthorn

These shrubs or small trees hide their dagger-sharp thorns beneath dense foliage and clusters of flowers or fruits on intricately arranged branches. Technically, thorns are a type of modified branch that resemble spikes. Because they remain firmly attached to the branches from which they grow, they can easily tear clothing and puncture flesh. Hawthorns can grow up to 15 feet tall. Depending on the species, their thorns range from ½ inch to more than 2 inches long. Legend claims that Paul Bunyan used an entire hawthorn tree as a backscratcher. Magpies often nest in hawthorns for protection from predators.

Where: Mostly western and central Montana in riparian forests, thickets, fields, and valleys.

Silver buffaloberry

This large, dense shrub (up to 12 feet tall) produces beautiful silver leaves and bright red fruits. But beware its thorny branches. Also known as thorny buffaloberry, this prairie shrub provides cover and food for many small wildlife species, including pheasants. To protect their hunting dogs’ eyes from injury when rooting roosters out from buffaloberry, some upland bird hunters fit their pets with plastic goggles.

Where: East of the Continental Divide along rivers and streams and in grassland depressions and gullies.

Wild rose

“Rose is a rose is a rose,” said author and poet Gertrude Stein, and most people can easily recognize one. But few know the correct name of the armaments on the stems of rose bushes (and many other plants). What are typically referred to as thorns are, botanically speaking, prickles. Prickles are sharp outgrowths found on the epidermis or outer “skin” of a stem. Some rose prickles look like miniature shark’s teeth.

Five species of wild rose grow in Montana. Their prickles, all painful when grabbed, vary in size, shape, and density.

Where: Statewide in open forests, valleys, grasslands, and riparian thickets.

Devil’s club

The plant that accosted me on the trail is a member of the ginseng family and has densely packed, ½-inch needle-sharp spines along its woody stem. The yellowish spines also cover the leaf stems and veins on the bottom sides of its large (4- to 12-inch) maplelike leaves. Reaching heights of 3 to 6 feet, devil’s club grows in dense, impenetrable thickets or scattered locations in forests of western red cedar, western hemlock, and western yew.

Where: Across northwestern Montana in shady, moist-to-wet mountain forests and along streams.

Gooseberry

According to the *Manual of Montana Vascular Plants* by Montana botanist and author Peter Lesica, “Gooseberry bushes have spiny twigs”—bristly stems and branches covered in prickles—while their look-alike cousins, the currants, are “unarmed.” Gooseberry leaves are shaped like small maple leaves with toothed or scalloped edges. Prickle density varies among the six different species.

Where: Western Montana in moist to wet forests, rocky hillsides, avalanche chutes, and riparian habitats from low mountain to subalpine zones.

Thistles

Many people think all thistles with lavender flowers are Canada thistles, an invasive species. But many Montana thistle species—some desirable natives, others invasives—have lavender flowers, including the bull (non-native), Scotch (non-native), musk (non-native), and wavy-leaf (native). All thistles are members of the aster family and have prickly stems and leaves.

Where: Statewide in disturbed ground, roadsides, fields, and open forests.

RASH REACTIONS

Stinging nettles

With their opposite leaf arrangement and square stems, nettles look like wild mint. And even though nettles are edible, when cooked properly, do not touch them with

your bare fingers, arms, or legs. The nettle’s tiny, colorless hairs hiding on all parts of the plant act like miniature hypodermic needles that inject formic acid, histamines, and other chemicals into your skin. The “sting” can leave a burning, itching sensation that lasts from minutes to hours. Plants often grow 3 feet or taller.

Where: Found statewide in rich soil in meadows, along streams, and in open forests from valley to subalpine zones.

Cow parsnip

This hefty member of the carrot family has huge leaves, 4 to 12 inches wide, and flat-topped clusters of white flowers (up to 8 inches across) that grow on 3- to 6-foot stems. Contact with cow parsnip, followed by exposure to bright sunlight, causes some people to develop a painful sunburn-like reaction known as photodermatitis.

Where: Western third of the state from valley to subalpine zones, in moist soils associated with avalanche chutes, open forests, riparian areas, and thickets.

Western poison ivy

“Leaves of three, let it be” is a great way to identify this small, low shrub. The top leaflet is slightly larger and attached to a slightly longer stem than the other two leaflets. The shiny green leaves turn bright red in autumn.

All parts of the plant harbor an oily resin (urushiol) that causes an allergic reaction that shows up as red, extremely itchy bumps on the skin. Urushiol adheres to clothing, boots, backpacks, and pet fur and can linger for several days. Fortunately, poison ivy’s cousins—poison oak and poison sumac—do not grow anywhere in Montana.

Where: Found in more than 20 counties from the northwestern to southeastern corners of the state. Poison ivy shows up mainly along lakeshores and banks of rivers and streams. 🐾



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VERY PRETTY, YET...

SOME ATTRACTIVE OR EDIBLE PLANTS CAN PUT UP A FIGHT IF YOU GET TOO CLOSE.

Gooseberry

People harvest gooseberries as they do many other wild berries. Though extremely tart, gooseberries can be cooked with a little water, smashed, then strained. The resulting pulp can be used as pie filling, and the juice makes an excellent syrup to use in cold drinks. The challenge with harvesting gooseberries are the plant's prickly stems and branches. Some people even experience allergic reactions to the prickles. Experienced harvesters wear leather gloves.



Hawthorn

Like the silver buffaloberry, the hawthorn is armed with long, sharp thorns that can tear clothing or even puncture skin.



Poison ivy

Montana is lucky not to have poison oak or poison sumac. But we are home to the infamous three-leaved poison ivy. If you think you've walked through a group of this low-growing plant, wash, with soap and water, your exposed skin as well as boots, socks, and pants. Poison ivy leaves are covered in an oily rash-inducing resin that can be transferred to your face by your fingers.



Prickly pear cactus

Ouch! Imagine the challenge for native people or Lewis and Clark trying to avoid these spine-covered plants while walking across a prairie wearing leather moccasins.



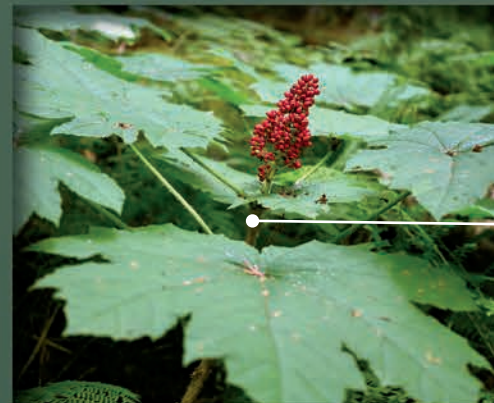
Stinging nettle

It takes a few minutes for the chemicals injected via the tiny hairs on nettles to set your skin on fire. As a result, many people wearing shorts have waded deep into fields of nettles before realizing what they've done. The burning itch can be intense. If you're near a stream or river, where nettles commonly grow, find relief by submerging your legs or arms in the cold water. At home, apply tape to your skin to pull out the hairs, then apply a soothing paste of baking soda and water.



Devil's club

The enormous leaves and clusters of red fruits are attractive to look at up close. But beware this plant's concealed weapons of needle-sharp spines lurking beneath the foliage. Handle with care.



Thistles

Thistles provide food for many animals. Some human foragers savor the young, peeled stems of the non-native musk, or nodding, thistle (shown here). Whether weeding or harvesting, wear gloves when handling.



Yucca

This may be Montana's most potentially painful plant. Its needle-tipped leaves make it definitely one you don't want to stumble onto.



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