Prickles, Spines, and Thorns, Oh My!

By Susan Camp

There are a lot of plants in the countryside that can hurt you. You can get tangled up in a patch of greenbrier or blackberry and swear you will never escape the vines with their needle-sharp prickles piercing the tender skin of your ankles and ripping holes in your favorite jeans. You find yourself circling carefully around a Washington hawthorn, attempting to evade its sharp, dangerous thorns, but nothing tops the pain of walking into the trunk of a devil's walkingstick, sometimes called Hercules' Club. You could swear that its deadly thorns have pierced you to the bone. And these are just a few plants that have evolved to bear sharp, pointy parts designed to repel invaders and inflict pain.

Have you ever thought about the definitions of prickles, spines, and thorns, or have you always figured they were just different words for the same pain-producing projections of unpleasant plants?

You might be surprised to learn that there are distinct differences between the three terms, and those differences mainly have to do with the point of origin of the sharp thing. Prickles arise from the epidermis or bark, i.e. the outer layer of a plant. They can be easily peeled or popped from the stem. Spines, on the other hand, grow from the deeper layer below the epidermis, and are considered modified leaves or stipules, the small structures that grow on either side of the petiole, or leaf stalk. Thorns are woody projections, actually modified branches. Keep in mind, however, that none of these definitions are graven in stone, and botanists and gardening writers will vary in their usage of these terms.

Common greenbrier (Smilax rotundiflora) for example, is putting out tender, light green shoots right now. S. rotundiflora, one of 300-350 worldwide species of Smilax, is native to eastern North America from Quebec to Florida and west to Texas, minus just a few states. The tender shoots, which can be eaten and are said to taste like asparagus, mature into tough, wiry vines that will cover any vegetation and be as difficult to remove as concertina wire. As if that isn't bad enough, the vines are armed at intervals with sharp thorns that cause painful wounds. Wait, are they thorns, spines or prickles? The pointy things can be peeled from the stems, so they are classified as prickles.

Roses and blackberries vines also have prickles, but one common native plant appears to have both spines and prickles. Aralia spinosa (devil's walkingstick) is a small, deciduous shrub or tree with a trunk peppered with dagger-sharp spines, and the small leaf stems and midribs are covered with prickles when they mature.

A. spinosa is native to the southeastern United States, ranging naturally from southern New York to Florida and west to Texas. Devil's Walkingstick appears in the spring as a slender, upright, gray-brown trunk covered with spines and leaf scars. It can reach a height of 15 to 40 feet,

occasionally producing side branches. The unique, huge, doubly or triply compound leaves are composed of leaflets arranged in an umbrella-like, whorled pattern.

In summer, panicles of creamy-white blossoms that attract native bees and wasps bloom above the leaves. Black, berry-like drupes that are eaten by birds and small mammals appear in early fall. A. spinosa is pretty when in bloom, but don't touch it.

The Washington hawthorn (Crataegus phaenopyrum) is a southeastern United States native. This small, deciduous tree is often used as a hedgerow plant because of its long, sharp, woody thorns. With its bright red berries (pomes) that remain on the branches throughout the winter, hawthorn, like greenbrier and devil's walkingstick, provides food and habitat for birds and small mammals.

To quote a line from "Pirates of the Caribbean," like the Pirates' Code, the definitions are "more what you'd call guidelines than actual rules." Read the interesting and entertaining article "Spines, Prickles, and Thorns" by Sarah Gage on the Washington (State) Native Plant Society website, and tread carefully this spring.