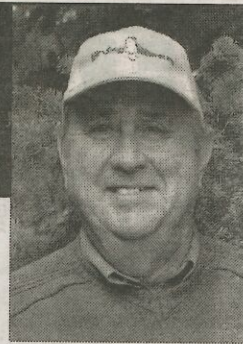


Walk Softly

GEOFF CARPENTIER

Goldenrod – Falsely Accused!



Ah it's autumn, and the smell of the fallen leaves is both invigorating and memory triggering.

For me, this is the time of year the forests emit an odour that takes me back to my youth. I'm not quite sure what causes it, except to say it is linked to the slow decay of deciduous leaves, and can only be smelled in the fall.

For me this is a joyous time, but for others it's a continuation of hay fever season. The goldenrod is often wrongly blamed for the discomfort many face, for it is actually ragweed that causes most of these unpleasant reactions.

Ragweed is a fairly inconspicuous plant that gets overlooked by the showy yellow flowers of the goldenrod. Ah, the challenges of being flashy!

That's not to say, some folks don't have sensitivity to goldenrod, but most don't. In eastern North America over 60 species of goldenrod can be found. Most are quite similar in appearance, and it takes some effort to separate the species, but the height, and leaf, flower arrangement and structure give clues that help.

All have narrow leaves and showy, but small, clusters of flowers at the end of a long stalk. They mostly start blooming

during late August, lasting well into early October, here. Being a perennial they are hardy, growing in disturbed and undisturbed areas alike. The seed heads they produce are an important food source for many seed-eating birds in fall and winter, so cutting should not be undertaken late in the season.

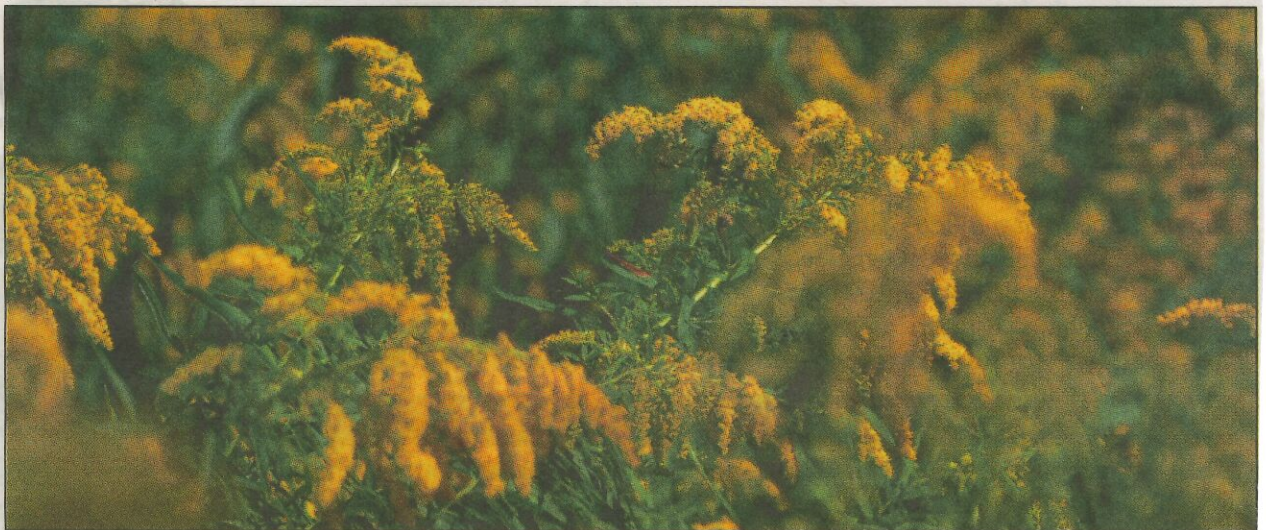
Did you know medicinal uses are known for this complex of species? Canada Goldenrod, the most common species in our area, was used by Native Americans. Roots were used to treat burns and the flowers for snakebites, fever and sore throats. The leaves are used in several countries to treat urinary problems, due to its diuretic properties.

Other species of goldenrod have uses including, treatment for rheumatism, neuralgia, headaches, diarrhea, dysentery, colds, coughs, measles, fever, cramps, colic, flatulence, and as a digestive stimulant. Wow, sounds a bit like Snake Oil, but all these uses have been proven over time.

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One well-known feature found on many plants is a small gall. It looks like a small canker, but in reality is the result of an insect, called the Goldenrod Gall Fly. The female fly tastes the plant before laying eggs, so she can choose the perfect host. But she doesn't use her mouth; she uses her feet and antennae to do this! Eggs are laid in the spring, by the female fly, on the stem of the goldenrod. The larva hatch out in a few days and secrete a hormone that stimulates local growth of the plant tissue, and therefore the gall. The gall will be the home for the grub until it emerges the following spring. It will overwinter inside the gall, creating a hollow chamber, protected from the freezing elements outside.

How do the insects keep from freezing in the winter? Well, they convert glycogen into glycerol and sorbitol, which serves as antifreeze, by reducing the water content in the body so ice crystals do not form

and cause cell injury. However that plan isn't fail safe, for at least two species of wasps and a beetle feed on the larvae inside the gall. Downy Woodpeckers and Black-capped Chickadees seek out this treasure for a tasty late season snack as well.

When the flies emerge in the spring they have a new problem, they're trapped inside this woody gall and can't chew their way out, as they have no teeth. However, the previous fall, the larva had prepared an escape route by chewing almost all the way through the gall wall, so in the spring the fly could simply inflate a balloon-like structure located on its face and push its way out!

Nature really is nifty, you know! Such clever and versatile plants!

Geoff Carpentier is a published author, expedition guide and environmental consultant. Visit Geoff online at www.avocetnatureservices.com and on LinkedIn and Facebook.