

March 1, 2005

Winter wildflowers of fields and roadsides

Even on winter days when wildlife seems completely absent and you don't feel like walking any further than the field behind your house, there are still interesting things to be found. The gray, architectural remains of the wildflowers that brightened fields and roadsides last summer are out there begging for some attention. Surprisingly enough, most species are still quite easy to identify, even if you don't have your field guide with you. You can also pick a bouquet and take them home for identification later. In fact, winter wildflower bouquets are quite attractive in their own right.

Like every other area of nature, wildflowers, too, have developed special strategies for winter survival. Just as garden plants can be annuals, biennials or perennials, the same is true for wildflowers. And, in the same way that most garden species are not native to Canada, the same holds for the plants that inhabit our fields and roadsides. Most are non-native species that quickly took advantage of the new, full-sun environment created by settlers when they cleared the land. Some species were brought from Europe and deliberately planted here to remind the settlers of home. Others arrived as seed buried in the soil used as ship ballast. When the ballast was removed from the ships in coastal ports of North America, the seed quickly germinated and the plants then spread along roads and railway lines inland.

Annuals complete their entire life cycle in a single growing season. They prefer open, full-sun environments and are especially abundant in sites where the ground has been recently disturbed. Although we find a few common native annuals such as ragweed and beggar ticks, the majority of species in this group are non-native and include green amaranth, lamb's quarters, crab grass and various mustards. With the first heavy frosts of fall, most annuals die leaving only their seeds to survive the winter. In fact, the seeds will not germinate until they have frozen for an extended period of time. This prevents fall germination and certain death from the cold. The seeds are long-lived and can remain dormant in the soil for years. The annuals of one group, known as winter annuals, produce seeds that actually germinate in the fall. The plant survives the winter as a rosette which is a circular, flattened cluster of leaves at the base of the plant. In the spring, flowers are produced which yield seed and the whole cycle starts again. The daisy fleabane is an example of a native winter annual.

Ragweed is probably our best-known native annual. Despite its claim to fame as the main cause of hayfever, ragweed seeds are actually a valuable source of winter food for ground-feeding birds such as sparrows and juncos. The seeds remain viable for many years as they await their turn in the sun. Bulldozed sites provide ideal ragweed habitat.

The term biennial is used to refer to species that take two years to produce their seeds. The first year is spent putting down roots and forming a rosette. This ring of prostrate leaves survives under the snow and sends up a stem early in the spring allowing for a quick start to the growing season. Biennials, too, inhabit full-sun environments such as old fields and roadsides. Some of the better-known biennials include native species such as black-eyed Susan and evening primrose. Among the non-natives, we find Queen Anne's lace (wild carrot), mullein and burdock.

Queen Anne's lace is especially easy to identify in winter because of the way the old flower clusters curl into a cuplike shape often described as a "bird's nest". If you look closely at

the seeds contained within, you'll notice that they have four rows of spines. These hook on to the fur of wild animals - or anything else that brushes up against them - and allows the seeds to be widely dispersed. To understand why this species is also called wild carrot, look near the base of the winter stalk. You will probably find the rosette of leaves of a new plant's first-year stage. It looks exactly like a carrot top. In the spring, pull the rosette out of the ground, and you will see the white taproot which both looks and smells like a small carrot. The seeds, too, have a carrot-like taste.

After early domination by annuals and biennials, perennials soon take over field habitats. Asters, goldenrods and milkweeds are three of the most common native perennials in our fields. Although the above-ground parts of most perennials die in the fall, the plant continues to survive below the ground, usually as a root or rhizome. Many perennials have a prominent tap root or a dense, fibrous root system. Others grow from rhizomes which are horizontal underground stems containing buds on their upper surface and roots on their lower surface. New plants emerge each spring from the buds.

Milkweed in particular deserves our attention and respect. First of all, it is the only source of food for the caterpillars of the monarch butterfly, an increasingly threatened species. By eating milkweed leaves, the caterpillars take on the same foul taste as the plant's bitter sap and in this way are protected from predators. These same chemicals remain in the insect even after it has metamorphosed into an adult butterfly. By planting milkweed species such as butterfly weed in your garden, you will not only enjoy the beautiful orange flowers and eye-appealing winter seed pods but you'll also be providing crucial food for monarch caterpillars. Reports from Mexico this winter are very disheartening. The number of monarchs that returned to the wintering grounds this fall in the Sierra Madre mountains near Mexico City is said to be 75% lower than usual. Illegal logging in the monarch butterfly winter sanctuaries appears to be the most likely reason for the decline.

Milkweeds are interesting for other reasons as well. Who can resist removing some of the silken seeds from the pod and throwing them up in the air? They are perfectly adapted to dispersal by the wind. The milkweed is also reputed as being one of the tastiest wild vegetables around. After the thin skin is removed, the tender spring shoots can be boiled in the same way as asparagus. Young milkweed pods are also edible.

If you just can't wait any longer for spring or want to grow some of the above species for your own garden, try gathering some seeds and planting them indoors. Asters, milkweeds and black-eyed Susans are all quite easy to grow. Use a professional soil mix; sprinkle seeds on the surface and press into the soil; cover lightly with soil mix; mist soil surface and cover with clear plastic. The seedlings require lots of light. If you want to transplant them into your garden, don't start the seedlings before April, since they will become too tall.

What to watch for this week

Male muskrats range far and wide in March in the pursuit of love. They will attempt to mate with as many females as they can find. Because their wanderings often bring them into the path of automobiles, they are often found dead on the road in late winter and early spring.

Drew Monkman is a local naturalist, teacher and author of *Nature's Year in the Kawarthas*.