

Magnified pollen particles.

Nothing to sneeze at

Pollen -- that single cell, yellow bit of dust that many allergy sufferers try to avoid -- is one of the most important elements in our natural habitats.

Pollen is how most plants transfer DNA

between individuals, giving rise to biodiversity and the differences within species that make every flower unique. Each pollen grain contains half of the DNA needed to make a seed. Pollen is a link to the ancient world; scientists have found fossil pollen pre-dating dinosaurs. Pollen also is the link between our aesthetically pleasing, nondescript and downright odd flowers and the insects, birds and bats that populate parkland, yards and strips of highway median planted in wildflowers.

Flower speak

Although pollen remained largely ignored by humankind throughout history, flowers were not. A not-so-secret code based on flowers was developed to communicate thoughts of encouragement, friendship and passion. Red roses signify love, whereas bluets signify innocence, and ragweed, well, that signifies hayfever. The common names of our most common wildflowers offer an intriguing glimpse into our past: fairy radish (spring beauty), Quaker ladies (those bluets again) and oysterleaf (Virginia bluebells). Some reflect the timing of flowering (shadbush for when the shad run in the streams) or where they grow (swamp milkweed is found in wet places). Common names can be strangely disappointing (New England aster) or at least unhelpful (common anything!) But whether their names are known or unknown, flowers speak a language of beauty and scent.



Virginia bluebells, aka oysterleaf.

"Earth laughs in flowers."

Ralph Waldo Emerson

A pollen delivery system

Let's not get distracted from a flower's true purpose as a pollen delivery system. The circle of a plant's life is dependent on the success of a flower giving and taking pollen. Showy flowers are designed to attract by using smell, color, shape and, sometimes, a reward, like nectar. The pink lady slipper orchid is an excellent example of a pollinator-attracting flower. A complex

infrastructure leads a bee through a twisty maze of flower parts (mostly modified petals). The maze allows the bee to brush the pistil with any pollen it's already carrying. The pistil collects pollen and directs it toward the flower's ova -- the part of the flower containing the other half of the DNA. The anthers then tip across the bee's back and add new pollen to be taken to another flower. Anthers are the plant part that produce pollen and are responsible for making sure it gets stuck on a pollinator. This complicated dance between pollinator and flower is repeated over and over again.

The same characteristics that lure pollinators to flowers lure people to admire and plant some of the finest wildflowers in yards and gardens. However, humans are just an afterthought in this process. Some plants spread their pollen without the assistance of pollinators. Plants with plain flowers, such as ragweed and grasses, expend their energy producing lots of pollen, relying on the wind to carry pollen to other flowers. Unfortunately, it's also carried to our noses and eyes.



A pollinator wings its way to a wreath goldenrod flower to compete its important duty.

Bees and butterflies

With over 30 common butterflies native to our area (and don't forget the moths and skippers), insects responsible for stewarding the wildflowers of Fairfax County are a diverse group. Bees, ants and beetles assist in a startlingly large number of pollinations during our spring and summer seasons. Spend some time looking at your nearest wildflower on a sunny, summer

day. How many insects are poking around inside?

Non-native wildflowers

Not all wildflowers are native. Typically, non-native wildflowers, like the lowly purple dead nettle*, rarely become more than a nuisance weed in the grass, but some species may become invasive (like multiflora rose* or lesser celandine*), leading to negative impacts on natural areas that we value most. So if you plant wildflowers, plant native wildflowers -- we've so many to choose from. But remember to get them from a sustainable source. Digging them up from parkland only hurts the park and the flower you're trying to grow.

If not you, who? Small things.

Compost in your yard. Among the biggest factors destroying woodland wildflowers are too many leaves on the forest floor. Recycling leaves in a compost bin instead of dumping them on parkland will keep our native wildflowers and forests healthy.

If not you, who? Big things.

Protect the pollinators. Consider providing a water dish for butterflies to "puddle" in. Or a "nest box" for bees. Read about and implement the simple things you can do to increase the number of beneficial insects in your yard. You'll have more flowers.



Pink lady's slipper

It's all in the family



Woodland sunflower

The Aster family, Asteraceae, is perhaps the most easily recognized flower family and probably one of the most misunderstood. The large showy "flower" of the cone flower or woodland sunflower is actually made up of tens of flowers. Two different types of flowers, the ray flower and disk flower, grow in a single head to make

the large structure we recognize as the "flower." The ray flowers are on the outer perimeter of the aster with a large colorful petal. The disc flowers, with no showy petals, stick to the center of these plants and often are in a contrasting color.

The Brassicaceae, also known as the Cruciferaeae or Mustard family, is recognized by the four-part cross of the flower. The next time you stumble upon a toothwort or garlic mustard* in the spring woodlands, take a look at an individual flower. The four petals line up like a plus sign.



Garlic mustard

Some of the most distinctively scented wildflowers are from the Mint family or Lamiaceae. Usually, the crushed leaves of peppermint* or gill over the ground* give off the strong, pleasant smells. If you're looking to identify this family, rub your fingers over the stems. If they are square, you have a mint.



Gill-over-the-ground



Care, Educate, Inspire

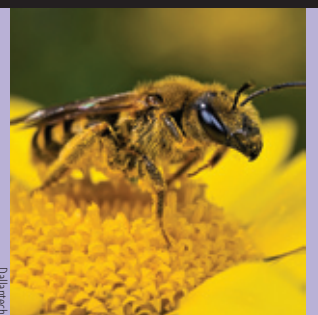
Stewardship is about working together to care for the environmental and cultural resources of Fairfax County. People become stewards for different reasons. They may want to help ensure clean water and air. They may wish to share something with their children. They may be inspired by spiritual beliefs. Whatever prompts our commitment, it is easy to take an active role in stewardship. It can be a small and simple thing, or it can be much bigger. Either way, it all adds up to a Fairfax County that looks to its past with pride and to its future with confidence.

You can learn more about Fairfax County Stewardship, the Board of Supervisors' 20-year environmental vision and the Fairfax County Park Authority at www.fairfaxcounty.gov/parks/stewardship



If accommodations or alternative formats are needed, please call 703-324-8563. TTY 703-803-3354.

Fairfax County Stewardship



Dalberch

Pollen



Crane fly orchid (leaves)



Teasel*



May apple



Spring beauty



Dutchman's breeches



Aster (winter)

Winter

Forest: crane fly orchid

Field/Meadow: aster, milkweed, teasel*

Wetland: skunk cabbage

Spring

Forest: spring beauty, may apple, dutchman's breeches, trillium

Field/Meadow: dandelion*

Wetland: jack-in-the-pulpit, trout lily



Trillium



Skunk cabbage



Milkweed (winter)



Trout lily



Jack-in-the-pulpit



Dandelion*

Don't pick the flowers

Any gardener knows the best flowers take extra care, and wildflowers are no exception. One of spring's masterpieces, the trout lily, takes five to seven years to go from seed to flower. Once established, the trout lily will spread from its root system, producing new plants every few years. Our native wildflowers have specific requirements for where they live and bloom best. Leave the wildflowers where you find them so they will be there in future years.

Don't sniff the flowers

Some of the most fascinating wildflowers are those that might not make the best-dressed list. The skunk cabbage, one of the earliest flowers of the year, has a distinctly foul odor – something between burning tires and decay. Another member of the Arum family, the jack-in-the-pulpit, looks like something out of science fiction – a long tongue hangs forward over the opening of the flower, hiding the "jack" inside.



Chickweed



Tick trefoil



Squaw root



Calico aster

Summer

Forest: squawroot, tick trefoil, chickweed

Field/Meadow: loosestrife, common milkweed

Wetland: cardinal flower



Common milkweed



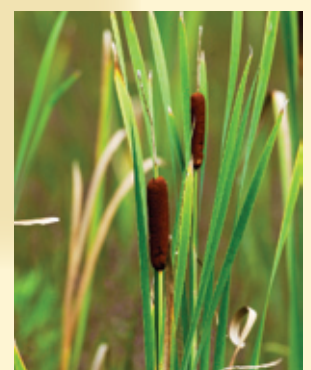
Loosestrife



Cardinal flower



Goldenrod



Cattail



Cone flower