

Attractive asters of autumn in bloom around area

By Susan Yost, Ph.D.

Delaware State University

The wildflowers of late summer and early autumn have been enlivening our roadsides, meadows and woodlands, and some will be here until the first frost. Yellows and golds come in the form of goldenrods, sunflowers, the centers of asters, and an occasional dandelion.

Blues and purples are the colors of ironweed, Joe-Pye weed and some asters. Whites are found in white snakeroot, boneset and some other asters. Planted chrysanthemums in vibrant shades of red, yellow and white are also part of the autumnal color display. In my kitchen, I'm enjoying the complementary colors of orange marigolds in a little blue vase.

These flowers are all members of the same family of flowering plants — the Asteraceae (Compositae); commonly called the aster, sunflower, daisy or composite family. This is one of the largest families of flowering plants in the world, and is usually easy to recognize.

In the aster/composite family, what appears to be a single flower is actually a "composite" of numerous tiny flowers, forming an inflorescence called a "head". When you pick a single "petal" of a daisy (as in "he loves me, he loves me not ..."), you are actually picking an entire flower! Each "petal" is one entire strap-shaped "ray" flower (with five fused petals). The flowers in the center of the daisy head are called "disk flowers." Some composites, like daisies and sunflowers, have both ray and disk flowers. Others, like white snakeroot, have only disk flowers. Still others, like chicory and dandelions, have only the strap-shaped flowers.

Delaware has 238 different species of Asteraceae, from *Achillea* (yarrow) to *Xanthium* (cocklebur), of which 167 are native, and 71 are non-native (according to the "Flora of Delaware," by W. McAvoy and K. Bennett, 2001). Many species grow in open areas. Some species grow in woodlands, like the native white wood aster (*Eurybia divaricata* [*Aster divaricatus*]) and blue-stemmed goldenrod (*Solidago caesia*). A few species grow in salt marshes, like the saltmarsh fleabane (*Pluchea odorata*) with its beautiful pink-purple flowers, and

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New England aster (*Symphyotrichum* [*Aster*] *novae-angliae*) is another very attractive native wildflower in the aster/composite family.

seaside goldenrod *Solidago sempervirens*, which also grows on coastal dunes.

Groundsel-bush (*Baccharis halimifolia*) is an unusual member of the aster/composite family, because it is a woody shrub. Most other members of this family are herbaceous plants, like those already mentioned above. Groundsel-bush is very noticeable right now along the edges of our salt marshes and some roadsides, since it is covered with what might appear to be white flowers. Actually, this plant is in fruit right now, and the white parts are hairs attached to the tiny fruits, similar to the fluffy seed-carrying "parachutes" of dandelions that many people like to blow on.

Last week, I was kayaking on the Leipsic River, and groundsel-bush was very easy to spot on the banks of this brackish river.

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The awl aster (*Symphyotrichum pilosum* [*Aster pilosus*]) is a native wildflower that grows in open areas at the end of summer and early autumn.

Each "flower" is actually a "head" of many white ray flowers and yellow disk flowers. Delaware has 238 different species of Asteraceae.

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Another shrubby composite is marsh-elder (*Iva frutescens*).

Many members of the aster family are used as ornamentals, such as cosmos, dahlia, and zinnia, in addition to some of the flowers already mentioned. However, some Asteraceae are not showy; for example, ragweed has tiny wind-pollinated flowers. A few species are of economic

importance, notably lettuce, sunflower, chicory and safflower for food; pyrethrum for an insecticide; and even marigold petals to add yellow color to the skin of certain brands of chicken.

On the campus of Delaware State University, the Claude E. Phillips Herbarium is Delaware's center for research, education, and outreach about plant identifications, locations, and uses. Call 857-6452 (Dr. Susan Yost, Herbarium Educator) to arrange a tour of the herbarium, or for more information about this article.

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