

# Wildflower in Focus

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## Black Cohosh (Black Snakeroot)

*Cimicifuga racemosa* (L.) Nutt.

(*Actaea racemosa* L.)

Buttercup Family (*Ranunculaceae*)



Field studies teachers and field trip leaders often urge students and participants to learn the scientific, as well as the common names, of native plants, reasoning that scientific plant species names are universally known and accepted while common names vary from place to place and person to person. Scientific names also convey information about the plant's relationship to other species and genera. However — as with many things botanical — scientific plant names aren't as fixed and certain as many of us would like. Black cohosh is a good case in point. While those of us confused about this plant's many common names have taken refuge in the universally accepted and alliterative *Cimicifuga racemosa*, we are now being asked to accept a scientific name change. Wikipedia makes a pretty good stab at describing the current situation: "The species has a history of taxonomic uncertainty dating back to Carl Linnaeus who, after some earlier revisions, had eventually placed it into the genus, *Actaea*, based on morphological characteristics

of the inflorescence and seeds. This designation was later revised by Thomas Nuttall, reclassifying the species to the genus, *Cimicifuga*, based solely on the dry follicles produced by black cohosh that are typical of species in *Cimicifuga*.<sup>[1]</sup> However, recent additional data from morphological and gene phylogeny analyses demonstrate that black cohosh is more closely related to species of the genus *Actaea* than to other *Cimicifuga* species, prompting the revision to *Actaea racemosa* as originally proposed by Linnaeus.<sup>[1]</sup>" (The work cited in Wikipedia is: Compton JA, Culham A, Jury SL (1998). "Reclassification of *Actaea* to include *Cimicifuga* and *Souliea* (Ranunculaceae): Phylogeny inferred from morphology, nrDNA ITS, and epDNA trnL-F sequence variation". *Taxon* 47:593-634. <http://www.jstor.org/pss/1223580>.)

Reverting to an older name has been the reason for many nomenclature changes in the past. However, with so much genetic research in the works, resulting in taxonomic reclassifications, name changes are coming at us at an accelerated pace, dating the guides we use in the field. Some of us take a conservative approach to name changes. Others are more flexible. In MNPS President Kirsten Johnson's words: "The older I get the more excuses I find to dislike new things. But plant names aren't just names, they're repositories of interesting information about the relationships among species, and the botanists who studied them. So it's fun to follow the reasoning behind the changes." I agree with Kirsten, but I am not wholly ready to let go of *Cimicifuga racemosa*, a favorite name of a beloved native wildflower. To help with the transition, I remind myself about the "rose by any other name...." My motto is to try to learn the new name (sometimes grudgingly), but remember the old one, and to keep in mind that taxonomy and nomenclature are always evolving. As this article goes to press, I receive a note about the name change from Patricia S. De Angelis, Ph.D. Botanist - Division of Scientific Authority Chair - Plant Conservation Alliance - Medicinal Plant Working Group, US Fish & Wildlife Service: "there is incomplete agreement as to the genus transfer, especially in medicinal plant circles, where *Actaea* is well-known as a poisonous genus."

Stay tuned! And remember that your knowledge and experience of the plant itself need not waiver in the face of taxonomic reclassification or changes in nomenclature. The USDA plant database website lists scientific name synonyms. If the name you know isn't listed first, hopefully you'll still be able to find it on the website.

**Flowers:** Small, creamy white, in long narrow terminal clusters (racemes). Buds are round. When they open, the outer floral parts soon fall off leaving many white stamens that give the flowers a fuzzy look. Stamens are less than 1/2" long. Each plant stalk bears one to several 3 - 20" long flower clusters.

**Leaves:** Alternate, compound and very large. Often growing in a pattern of threes. Three large leaflets are divided into smaller subleaflets which are toothed and ovate, or sometimes lobed. Leaflets and subleaflets vary in size.

**Height and Growth Habit:** 3 - 8'; tall, narrow flower clusters extend upwards from the leaves.

**Habitat and Range:** Woodlands (often on rocky slopes), roadsides; Massachusetts to Indiana, south to South Carolina and Missouri. According to plant ecologist and MNPS board member Rod Simmons: "*Cimicifuga racemosa* [or *Actaea racemosa*] is an important and dominant plant of the Appalachians, commonly seen in abundance on rocky slopes and coves of mixed oak and mesophytic forests. It is well distributed but much less abundant in the piedmont and along the fall line, again usually occurring most prominently on wooded slopes, ravines, streambanks, and mesic woodland. In Maryland, it is generally rare to absent on the coastal plain, except locally on rich, loamy, calcareous marine sands and marl deposits of 'Shell-Marl Ravine Forests.' Maryland's largest and finest example of this type is an old-age section of the north tract of Chapman Forest along the Potomac River in western Charles County. I just completed a vegetation sampling plot for the National Vegetation Classification/Maryland DNR at this site which comprised a steep north-facing slope above a seepage stream valley. Colonies of *Cimicifuga racemosa* grow here amidst ancient groves of *Staphylea trifolia* and a suite of other disjunct montane and inner piedmont flora such as *Carex albursina*, *Quercus muehlenbergii*, *Fraxinus americana*, and others. A small section of similar forest with *Cimicifuga racemosa* and other disjunct flora also occurs in rich, forested ravines along the Chesapeake Bay at Flag Ponds Park in Calvert County."

**Herbal Lore:** Black cohosh root has been used to treat many conditions, including bronchitis, rheumatism, snakebite, menstrual problems, childbirth and menopause. Steven Foster and James Duke report in Peterson's Eastern/Central Medicinal Plants: "Research has confirmed estrogenic, hypoglycemic, sedative, and anti-inflammatory activity. Root extract strengthens female reproductive organs in rats." Alonso Abugattas, Arlington County naturalist and director of the Long

Branch Nature Center, has some fascinating herbal facts to impart to MNPS members about this plant: "First I thought the genus name had been changed to *Actaea*? It has a ton of common names which point to the many uses and beliefs people had for it: black cohosh, bugbane (the less-than-pleasant flowers were crushed along the skin to repel pests and *Cimicifuga* supposedly means 'to chase bugs away'), black snakeroot, fairy candles (for the dainty flowers), richweed, bugwort, squawroot, rattletop (the seed heads rattle), papoose root, rattleweed, and rattlebox. The Cherokee (and some Iroquois) used the roots for rheumatism and to help babies sleep more soundly. Many used it to treat snakebites. James Duke mentions (although with caution) that it can be used for these also. The main pollinators are supposedly carrion flies (again the flowers smell less than nice). Jack Sander's wildflower book has some neat tidbits about it, the most interesting of which was a reference to a patented medicine called Lydia E. Pinkham's Vegetable Compound that was used for menstrual pains and boasted cohosh as a main ingredient. Sanders points out though that since it was 20% alcohol...it was popular for use by 'polite women' and during Prohibition. He says that it is still available but without the booze. I like the distinctive 3-pronged look this plant has."

**Warning:** Black cohosh should not be harvested in the wild. Montgomery County Forest Ecologist and MNPS board member Carole Bergmann points out that this plant's local populations have been decimated by deer and by plant collectors.

**Similar Species:** According to MNPS board member, field studies teacher and author Cris Fleming, black cohosh "can be confused with doll's eyes (*Actaea pachypoda*) if only the leaves are present. Not so much so in our [Washington, D.C.] area since doll's eyes isn't found here often, but in mountain areas where they both grow together. We had good examples of both next to each other on the MNPS joint trip with Pennsylvania NPS."

**Blooming Time:** June - August.

**Locations:** Throughout Maryland (but not common on the Coastal Plain): Little Bennett Regional Park, Black Hills Regional Park, Rachel Carson Conservation Park, Hoyles Mill Conservation Park, Sugarloaf Mountain along the Red Trail near the summit, Catoctin and South Mountains; South River Greenway, Anne Arundel County, and Shepherd Parkway in the Fort Circle Parks, Washington, D.C.

MNPS board members Carole Bergmann, Cris Fleming, Kirsten Johnson, Karyn Molines and Rod Simmons contributed to this article as did Alonso Abugattas, Patricia S. De Angelis, Charles Smith, and others.

"Wildflower in Focus" is adapted from **An Illustrated Guide to Eastern Woodland Wildflowers and Trees: 350 Plants Observed at Sugarloaf Mountain, Maryland** (Choukas-Bradley and Brown, University of Virginia Press, 2008).