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PLANT NAMES

(Partially copied from an article compiled by Robert W. Joerger in August of 1974 pertaining to the background of the naming of plants. Most interesting and informative, this article should have appeal to many of our members--so please read on.)

The same plant may have the simple English name of blue bells, but known to botanists as Mertensia Virginia. Why this difference is the subject of this essay.

Let's consider some common names first with occasional reference to its Greek or Latin equivalent, and then explore the need of the latter for better understanding.

Simplest of all, perhaps, are flowers with colors ranging the spectrum: pinks, cardinal flower, lemon and orange, yellowwood and goldenrod, lilac and violet, bluets, blue bonnet, and such Greek words as phlox (for flame), iris (the whole rainbow).

The time of bloom gives rise to morning glory, four-o'clock, evening primrose; the day lily reflected in Greek as Hemerocallis, lasting only a day; when by season we get spring beauty, May flower, June berry, wintergreen (Chimaphila, winter friend in Greek); and perhaps eternity with pearly everlasting.

Women of all degrees are represented by bouncing bet (suggesting to Burroughs a Yorkshire housemaid), black-eyed Susan, Quaker Ladies, ladies' thumbs and tresses, Queen Anne's lace; and of course, Lady's Slipper, which in Greek becomes Cypripedium, Venus' sandal. The tree, Paulownia, was named after a Russian princess.

Religion contributed a number of names for our plants. Many are known by the name Mary; in Marigold we really have Mary's gold. Others: Madonna lily, St. John's-wort, Star-of-Bethlehem. Veronica (from vera eicon, true image) recalls the impression of Christ's face registered on the cloth used by the maiden.

Nasturtium (nose twister) remind us that some odors are foul as with skunk cabbage (S. foetidus) or carrion flower; but also sweet-smelling like Sweet Shrub, Meadowsweet; while strawberries carry the Latin name Fragaria, fragrant.

Many often-used English names come from other languages. Even a desk dictionary will show that Pansy comes from the French word, pensee, thoughts; dandelion from dent-de-lion or lion's tooth (for the leaves). And from the Latin we get Aster (star shaped), saxifrage, or rock breakers); wort is Old English for herb; and many from the Greek like Anemone, wind-shaken; Helianthus, sun flower; Hepatica, liver, from shape of leaves; Chrysanthemum, golden flower, whose member, the ox-eye-daisy, Chaucer wrote

"That well be reason man call it Daisie, or, the eye of day."

Horse means coarse when used in horse radish, chestnut, mint, weed, etc. Other animal associations are numerous and various: lizard tail and fox tail (grass), trout and tiger lilies, pigweed and sow thistle, rattlesnake root or plantain, sheep laurel or lambskill (actually poisonous) lupine (Latin for

wolf, said to destroy crop fertility); goat's beard, monkey flower, chickweed, toad flax, dragon-head, crow's foot; also goosefoot family, Greek Chenopodiaceae, for shape of leaves. Then there is dog hobble, dog bane (Greek, Apocynum-- "away with dogs" as far as we know, no threat); and dogwood, so named when the English used a decoction of its bark to bath mangy dogs; its name: Cornus came from Latin cornu, horn, referring to the hardness of the wood as in Cornus Florida.

From what has been said so far, one gets the distinct impression that most plant names are trivial, haphazard in origin, and of course differ in the various languages. Only a small part of the estimated 350,000 plants now known have either English, French, German, or other names. Some universal language should be used. All this was largely resolved when we come to that remarkable man known as Carl Linnaeus (1707-1778), the great Swedish naturalist, often called "the father of botany."

He brought to it sex and system. His two claims to fame: he applied the so-called sexual system, using the arrangement of sex organs (pistils, stamens, ovaries) as a means of classifying plants; and secondly, he devised the binomial method of two parts: a capitalized generic noun, a descriptive specific adjective.

Linnaeus used Latin (or latinized Greek) as it was understood in all countries and this has been continued ever since because it is precise in writing and speaking, effective and beautiful. What a tremendous work to re-name thousands of plants gathered in his day by botanists from all over the world.

His greatest book of 1200 pages, *Species of Plants* (1753) is considered the turning point of systematic botany. For the genera, he used names from classical myths and literature, some already mentioned above. For example, *Achillea*, derives from Achilles who used the leaves of yarrow to make an ointment for the wounds of his soldiers. Even today about half of the names of the plant families are of this origin. Where he needed new names, he used those of friends and botanists which so commemorated *Zinnia*, *Lobellia*, *Rudbeckia*, *Tradescantia*, *Manolia*; and in our own country with such as the tree *Franklinia*, *Clintonia* (Governor or New York), *Lewisia redivivia* for the bitter root of Lewis and Clark, *Poinsettia*, *Catesby* (trillium), *Michaux* in *Saxifrage michauxii*; *Bartonia*, *Kalmia*, *Mitchella*, and so forth. Though an accurate definition of species is impossible, generally it means a group of individuals regarded by experts after careful study of likenesses and differences (such as habit, shape, stature, color, season, fragrance, etc.).

H. L. Rickett in his great survey of wild flowers states that most have no English names, and that some of those are confusing, so a botanical name is a prerequisite. First to identify, to give one name to each, to clarify, and it must appear in publication. Second to classify, to assign it to the right niche in the tree of life. Common names lack precision, their utility is limited. Thirdly, a name is not merely letters in a book or on a herbarium sheet, it is the record of a living plant; a plant sought and scrutinized, admired and then named for all time. And from that great laboratory, the out-of-doors, the hills and fields teeming with life, there is much that is not known, all of which requires more study.

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March 10 20 30 10 20 30 April

Yellow stargrass							-----
Forget-me-not							-----
Fire pink							-----
Solomon's seal							-----
Heart leaf wild ginger							-----
Bellwort							-----
Canada violet (or striata)							-----
Alumroot							---
Sweet cicely							--
Atamasco lily							--
Blue-eyed grass							--
Lady's slipper (pink)							-
Yellow trillium							-----
Jack-in-the pulpit							-----
Dwarf white itis							---

March and April Spring flowers - Time of flowering in one small (40x40) plot at edge of pond - Carolina Village (wooded area)

As of May 1--the only one that might open in one or two days--Anemone canadensis. There have been no new ones today. One robin's plantain came open April 10-- more are about to open.

I have not listed buttercup, cinquefoil, or wood sorrell--or dandelions. One Clintonia is in big bud. I will keep checking. My next list will be called Summer Flowers.

LOOK AGAIN! Article by Dick Smith on following page.
(Editor's comment: Not only is Dick a discerning botanist, he is an excellent line drawing artist.)

LOOK AGAIN!



Goodyera repens

One of the difficulties that we amateur botanists have with unillustrated keys is that the characteristics cited to differentiate similar species often appear to be minor ones and give the impression that we are going to have trouble deciding which is which.

Actually, it usually comes as a surprise that the second species, when we finally come across it, looks so unlike the first - and in so many respects.

The two species of rattlesnake plantain orchid (*Goodyera*) found in our area are good examples. The average amateur probably will see hundreds of the relatively abundant *Goodyera pubescens* before finding his first *G. repens*, which is much less common. When he does, it will indeed look very different, but since he might put it down as a depauperate *G. pubescens*, it would be well to fix the differences in his mind beforehand:

In the first place, *Goodyera repens* is a smaller plant, and it is this, more than anything else, that is immediately evident. It is perhaps two-thirds as tall as *G. pubescens*, the leaves half as long, and the raceme definitely shorter. Also, the flowers are fewer, less crowded, and distinctly secund.



G. repens

But the best field mark (and this will serve for year-round identification) is the leaf venation. *G. pubescens* has a prominent whitish midvein and a network of numerous fine, pale green veinlets. In *G. repens* these markings are dark green instead of light, and in our plants (which are distinguished from the European ones as "var. ophioides") they are bordered in greenish white. The veinlets seldom are branched, run roughly at right angles to the veins, and having wider bands of white are more conspicuous than the veins.



G. pubescens

Goodyera repens is confined to a more northern range than *G. pubescens*, and in our region grows in the cold Canadian-type forests of the mountains. Look for it under spruces and firs along the Blue Ridge Parkway, for instance. And think small!

Dick Smith

ENERGY SOURCE - THE SKUNK CABBAGE

The following revealing article was extracted from an editorial column captioned "Nature" submitted in the Pittsburgh Sunday-Telegraph by Max Henrici, January 1947. What is stated 34 years ago is just as valid today.

Dr. O. E. Jennings, director, and curator of botany of the Carnegie Museum, said some interesting things about the skunk cabbage in a radio talk on "The Awakening of Spring" which was later republished by the University of Pittsburgh in a copyrighted booklet entitled "Spring: The Naturalist Afield." I quote:

"It has been found that the temperature of the cavity inside of the rolled-up spathe is sometimes several degrees higher than that of the surrounding outside air. Every bit of living tissue carries on certain chemical changes within itself as long as it is alive. One of these chemical changes is respiration, and this always results in the appearance of heat. In the skunk cabbage it is probable that the fleshy spathe forms a sort of insulating jacket around the cavity and that the heat thus accumulates, perhaps escaping most readily at the tip of the rolled-up spathe. It is not improbable that the spathe, pointed at the tip, actually melts its way up through the swamp mud which may be only slightly below the freezing point. This may account for the very early appearance of the skunk cabbage, often in February or even in late January, which entitles it to the honor of being our first spring flower. Like the traditional groundhog, the skunk cabbage keeps itself warm by consuming its own body store of fuel. After the long period of hibernation there comes the spring awakening, but, again like the groundhog of tradition, the skunk cabbage sometimes has to quiet down and sleep some more during the cold spells in late February or March.

"The little ball of flowers which is to be seen in the hollow of the partly open purplish red or blotched spathe furnishes an abundance of pollen which is used as food by certain insects. Insects entering the spathe find it warmer inside, like a little steam-heated flat. We can think, then, of the plants as entertaining the visitors in a warm room and giving them food. Incidentally, as the insects go from flower to flower, the pollen is carried about and pollination assisted, with the result that there is a better seed-crop. However, this is still not the whole story. It is claimed by some of our nature students that the early spider is also abroad and sometimes spins a web across the opening, thus catching the early insect visitor."