

The NYBG Native Plant Garden in April

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BARREN STRAWBERRY *Waldsteinia fragaroides* Rose Family

Named for Bohemian botanist Count Franz von Waldstein-Wartenberg; *fragaroides* means “like genus *fragaria* (strawberry)”.

Description: Suggests a strawberry with yellow flowers, but lacks runners. Leaves and flowers on separate stalks. Fruits are not edible.

BLOODROOT *Sanguinaria canadensis* Poppy Family

Name: from Latin *sanguis* ‘blood’. Refers to the red sap in the rhizomes.

Also called: Coonroot, Redroot, Sweet-Slumber, Turmeric, Puccoon (which Indians called any plant that was a source of dye).

Description: White flower with a golden orange center grows through the center of a lobed basal leaf that curls around the flower stalk. A most beautiful but fragile flower of early spring with generally eight brilliant white petals, four of which alternate with the others and are a trifle narrow, imparting a four-sided aspect to the full-blown blossom. The petals expand flatly in the morning and become erect toward the late afternoon, and close by evening. The flowers are too fragile to be picked.



Native Americans used red latex to color clothes and baskets, and applied it to their bodies and faces as ceremonial paint. The latter way it was also an insect repellent. Medically it was used by them to induce therapeutic vomiting, to treat sore throats, ringworm and rheumatism.

Medically it has become important as a source of sanguinarine, a dental plaque inhibitor. An excess depresses the central nervous system, causes nausea and vomiting and may prove fatal. It has been used in USP and NF chiefly as an expectorant, especially in chronic bronchitis.

Comment: The blossoms attract insects which gather pollen but find no honey. Ants are the primary dispersal agents of bloodroot seeds, carrying them off by the caruncle, which they later chew off and bury. Many of the seeds then germinate the following spring.



BLUE COHOSH *Caulophyllum thalictroides* Barberry Family

Name: Latin *caulis* ‘stem’, *phyllum* ‘leaf’; ‘like the genus *thalictrum* (meadow rue)’

Also called: Blueberry, Blueberry-Root, Blue Ginseng, Columbine-Leaved Leontice, False Cohosh, Green-Vivian, Papoose-Root, Squaw-Root.



Description: Flowers are inconspicuous, the fruit a deep blue berry. Early identification is helped by the white waxy bloom on stalks.

Leaves: 3-5 pointed lobes, usually highly divided into 27 leaflets.

Medical: In 1933 Blue Cohosh was confirmed as an aid in childbirth, “with special influences upon maladies peculiar to the female generative organs. Thus efficacious in hysteria.” The USD includes its use in chronic rheumatism, bronchitis.

Edible: The seeds were reportedly used as a coffee substitute.

Native Americans: Indian women used tea of the Blue Cohosh root for two or three weeks before parturition, thus called Papoose Root for its aid in childbirth. Not taken early in pregnancy because it leads to miscarriage (thus called Squawroot).



CELANDINE POPPY *Stylophorum diphyllum* Poppy Family

Description: Plant with yellow juice and yellow flowers, solitary or in small clusters at top of a stem that has a single pair of deeply-lobed leaves.

Named from the Greek word for swallow because they bloomed when the swallows came; two-leaved.

Leaves: Pale green, whitish on underside. Juice yellow.

Seed pod: hairy, football-shaped.

COLUMBINE *Aquilegia canadensis* Buttercup Family

Description: A nodding, red and yellow flower with upward spurred petals, spreading colored sepals and numerous yellow stamens hanging below the petals.

Name: from Latin *columbina* ‘of doves’, *aquilegia* ‘eagle’.

Also called: Honey-Horns, Honeysuckle, Lady’s Slipper, Meetinghouses, Rock-Lily.

Flower looks like five pigeon heads facing each other.

Leaves grow in threes and are usually deeply lobed.

Native Americans: Among the Indians of the Missouri River Range, “The seeds are used especially by bachelors as a perfume. They chew the seeds to a paste, then spread it among the clothes where it persists for a long time, being perceptible when dampened by dew or rain.”

Medical: It has been used as a diuretic, anti-scorbutic, tonic, laxative. “It is probably dangerous.”

Comment: All our native columbines do well in the garden. The flowers are adapted to early-arriving hummingbirds: the red color attracts them and the long floral tubes keep the nectar reserved for the birds’ equally long tongues. Once flowering is past, watch for the fruits which are a close second in interest. The flower, which has been pointing down, tilts to an upright position. Five small tubes, clustered together, each containing many small, dark seeds which fall out when the plant is shaken by the wind. Columbines are specialized for hummingbirds, since bees cannot reach the nectar in the long, narrow tube; nevertheless, bees land on top of the flower, and poke a hole into the spur to sip the nectar.

Columbine overwinters as a rosette of leaves.



CUCKOO-FLOWER/LADY'S SMOCK *Cardamine pratensis* Mustard Family

Also called: Cuckoo-Spit, Mayflower, Milkmaid, Smick-Smock, Spink.

Name: Greek *kardamon*, referring to a Persian or Indian herb; *pratensis* refers to meadows.

History: Shakespeare used “lady-smocks all silver white and cuckoo bids of yellow hue” in *Love’s Labour’s Lost* in 1597 “when the Cuckowe doth begin to sing her pleasant notes without stammering.”



Edible: The bittercresses are only bitter-leaved and unpalatable when old; young leaves are sharply flavored, could rival watercress as a pungent green salad.

Comment: Evidently called Lady’s Smocks because a thick patch in a field resembles linen put out to bleach in the sun.

CRESTED DWARF IRIS *Iris cristata* Iris Family

Description: A single, violet-blue flower is at the top of a short, slender stalk. Sepals are “bearded”—crested with yellow or white ridges, streaked with purple. Marked with three raised parallel flutings along the center, the middle one of which is orange yellow. Leaves are lance-shaped, and differ from irises having leaves wide to the base whereas these come to a point at both ends.



Name: Iris is Greek for rainbow; Latin *cristata* ‘crested’.

History: Spring blooming irises have always been seen as regal flowers. Throughout history they have symbolized power as the emblem at the top of the scepter of kings and queens, the three parts of the flower representing wisdom, faith and courage. In medieval France the iris was called the fleur-de-lis and is still the symbol of Florence, Italy.

Herbal uses: Orris root is the dried inner portion of iris rhizomes, with a fragrance like violets, but having the properties of a fixative, a substance that can absorb other fragrances and slowly release them; thus used in perfumes and potpourris.

Flower: The three largest petal-like structures are actually sepals and enclose the flower in the bud stage. The three upright petal-like structures **are** the petals. The male part is hidden just under the female but can be seen if you gently lift up the female part.

After a bee lands on one of the large floppy sepals, it follows the yellow lines and crawls into the opening under the female part. The lip of the female part scrapes off any pollen that was on the bee’s back from a previous flower. As the bee crawls farther, it gets new pollen from the male part all over its back. Then it continues crawling down to the base of the flower where it feeds on nectar. It departs through the openings formed by the large bend in the middle of the female part.



DUTCHMAN’S BREECHES *Dicentra cucullaria* Poppy Family

Description: Clusters of fragrant, white, pantaloon-shaped flowers are on a leafless stalk above the much-divided, feathery basal leaves.

Also called: Bachelor-Breeches, Boys-and-Girls, Colicweed, White-Hearts, Flyflower, Monkshood, Soldier’s-Cap, Staggerweed, Turkey.

Name: *Dicentra* means ‘twice-spurred’ in Greek; Latin *cucullatus* ‘hood’.

Native Americans: One of the most important love charms of the Menomini, the young swain tries to throw Dutchman’s Breeches at his intended and hit her with it. Another way is for him to chew the root, breathing out so that the scent will carry to her. He then circles around the girl and when she catches the scent, she will follow him wherever he goes.

Comment: Several species of *Dicentra* are toxic to grazing animals (whence Staggerweed).

FALSE HELLEBORE *Veratrum Veride* Lily Family

Name: *Veratrum* was the Latin word for ‘hellebore’.

Description: Course, swampland plant with leafy stem and large, branching cluster of yellow-green flowers. Leaves large, oval, clasping the stem and strongly ribbed lengthwise. Root very poisonous as is the foliage. 2–6 feet tall.

Native American: Although the foliage has a burning taste and is usually avoided by animals, it can be lethal. It is said that some Indian chiefs were selected only if they survived eating this plant.



FOAMFLOWER *Tiarella cordifolia* Saxifrage Family



Name: The genus name is from the Greek *tiara*, designating a turban once worn by the Persians, and refers to the shape of the pistil. The tiny flowers and fine texture of the stamens resemble foam and account for the common name. *Cordifolia* means ‘heart-leaved’.

Comment: Spreads by underground stems, forms colonies, and makes excellent groundcover for shady, wooded sites with maple-like leaves.

Medical: Because their leaves were brewed into medicinal tea for treating fevers, they were once commonly known as coolworts.

FRINGE TREE *Chionanthus virginicus* Olive Family

Name: Greek *chion* ‘white’, *anthos* ‘flower’.

Description: After leaves unfold in late spring, fragrant hanging clusters of shred-like white flowers appear on a single or multiple slim-waisted trunk.

Herb Lore: Bark was mashed to cleanse wounds. Bark used as a tonic, a diuretic, laxative.

Comment: A raving beauty when in mid spring it is loaded from top to bottom with the airiest, most ethereal yet showy flowers boasted by any member of our northern sylva. Fringe-tree fruit are olive-like and the species is an olive relative.



GOLDEN CLUB *Orontium aquaticum* Arum Family

Named for a plant from the Orontes River in Syria.

Description: Aquatic with long-stalked leaves, and a golden yellow, club-like spadix. A single species in the genus.

Also called: Bull-Tongue, Floating-Arum, Tawkee, Water-Dock, Never-Wet.

Native Americans: The Indians boiled and ate the thick starchy roots. They used the pea-flavored seeds instead of bread.



GOLDENSEAL *Hydrastis canadensis* Buttercup Family

Description: From a yellow, underground stem rises a single, large, wrinkled basal leaf and a hairy stalk with a solitary flower about 2–5 lobed stem leaves.

Also called: Orangeroot, Eye-Balm, Ground Raspberry, Indian-Turmeric.

Flower: An insignificant creamy yellow flower that in the summer becomes an inedible raspberry-like fruit.

Medical: The roots were used to treat dyspepsia, skin eruptions and hemorrhage and were also a source of yellow dye and an insect repellent. The root also contains an antibiotic that is effective against broad-spectrum bacteria and protozoa. Today a common ingredient with Echinacea.

Native Americans: A medicinal drug introduced to early settlers by the Cherokee who used it as a wash for sore eyes and skin disease. Was also a yellow clothing dye. The roots pounded with bear fat were used as an insect repellent and eye salve.

Herbal Lore: Goldenseal enhances the body's seasonal resistance; has effects on liver and stomach. Helps reduce inflammation of mucous membranes. Anti-cancer activity (berberine), helps acute diarrhea. High doses may cause vomiting, decrease in white blood cells. Not to be used during pregnancy as it stimulates the uterus.

Comment: Once abundant, the only American goldenseal is rare now because its thick yellow roots have had great commercial value.



JACK-IN-THE-PULPIT *Arisaema triphyllum* Arum Family

Name: from *Arum* plus *haima* 'blood', because some species have red blotches; *triphyllum* 'three leaves'.

Flower: curving ridged hood (the spathe or pulpit) green or purplish-brown, often streaked or mottled, envelops an erect club (the spadix or Jack). Spadix bears tiny separate male and female flowers at the base.



Leaves: 1 or 2, long-stemmed, veined, dull green. If only one leaf, it will not flower—the

plant bears its bloom in the fork between two leaf stems, just as the Mayapple does.



Fruit: cluster of shiny red berries on spadix in late summer or fall.

Native Americans gathered the fleshy taproots as a vegetable. The peppery taste of Jack-in-the-Pulpit causes a strong burning reaction if eaten raw, but this can be eliminated by cooking.

Comment: In some states this plant is quite rare and is protected by law.

JACOB'S LADDER *Polemonium van-bruntiae* Phlox Family

Description: On an erect stem, leafy to the top, bloom few-flowered clusters of bell-shaped bluish-purple flowers with long protruding stamens.

Name: Greek *polemos* means 'war'; specific epithet honors Ulster County (NY) resident Mrs. Cornelius van Brunt.

Also called: Bluebells, American Great-Valerian, Snakeroot, Sweatroot.

Leaves: pinnately divided into numerous lanceolate sharp pointed leaflets, each ½ to 1½ inches long, paired, with 11–17 pointed leaflets.

Comment: The paired leaflets seem to form a ladder up the stem and account for the common name, which alludes to the ladder to heaven seen by Jacob in a dream.



MARSH MARIGOLD *Caltha palustris* Buttercup Family

Name: from Greek *kalathos* 'cup, goblet'; Latin *palus* 'marsh'.

Description: A succulent plant with glossy, heart- or kidney-shaped leaves and a thick, hollow branching stem with bright, shiny yellow flowers.

Habitat: swamps, marshes, wet meadows, along streams.

Comment: The flowers of this showy spring plant resemble large Buttercups rather than the Marigolds. The leaves are sometimes used as potherbs but require several short boilings with changes of water between. They should not be eaten raw.

MAYAPPLE *Podophyllum peltatum* Barberry Family

Flower: Solitary, nodding flower borne in the crotch between a pair of large, deeply lobed leaves. Mayapple flowers only on a forked stalk, so only two-leaved plants bear blooms and fruit, as with Jack-in-the-Pulpit.



Also called: Devil's Apple, Ground-Lemon, Indian-Apple, Mandrake-Pear, Umbrella-Plant, Yellow-Berry.

Name: *Podophyllum* 'foot-leaf'; *peltatum* 'shield-like'.

Fruit: Lemon-yellow when ripe, edible as plants die back.

Edible: An 1855 recipe for May-Apple preserves includes

adding boiled ginger and cloves, boiling syrup twice, and not used for six weeks.

Native American: Used for a variety of ailments; it has violent cathartic properties extracted from the root, Podophyllin, which is used for genital warts and small-cell carcinoma.

Comment: Has no nectar but is cross-fertilized by early bees which collect the pollen. 19th century botanist Asa Gray described the flavor as “beloved of pigs, raccoons and small boys.” Immature fruits, seeds and all other plant parts are poisonous.

SKUNK CABBAGE *Symplocarpus foetidus* Arum Family

Name: Greek *symplo* ‘united’, *karpos* ‘fruit’; *Latin* fetid

Also called: Collard, Fetid-Hellebore, Irish Cabbage, Poke, Polkweed, Stink-Cabbage, Bear’s-Foot (when bears leave their winter quarters in spring are fond of it).

Flower: Emerging from moist earth in early spring, a large brownish-purple and/or green, mottled shell-like spathe enclosing a knot-like spadix covered with tiny flowers. Malodorous.



Leaves: By late spring a tight roll of fresh green leaves beside the spathe and lined like cabbage leaves unfolds to form huge, bright green, cabbage-like leaves that may carpet an area. Leaves are 1–2 feet long, to 1 foot wide.

Native American: In 1723 Thomas More sent a package of botanical specimens to London, reporting this is “smoked by Indians when they want tobacco...It stunk so wretchedly as to make me spew.”

Medical: Historically used against scurvy (1760’s), cure of the itch (1768) and as a nerve sedative in whooping cough and hysteria (USD).

Comment: This distinctive plant of marshy woods sprouts so early in spring that the heat of cellular respiration resulting from its rapid growth actually melts snow or ice around it.

SPICE BUSH *Lindera benzoin*

Description: Shrub with tiny yellow flowers on stems before any leaves start.

Named for Swedish botanist Johann Linder; *benzoin* comes from an Arabic expression for the aromatic ‘incense of Java’.

Comment: Bark is aromatic, like a spice smell when scratched.

Plants of both sexes must be present in order for the tiny scarlet berries to form on the female plants which soon disappear, eaten by birds. Spice Bushes are rarely bothered by pests and are excellent in light, shady borders.



SPRING BEAUTY *Claytonia virginica* Purslane Family

Description: A low plant with loose clusters of pink or whitish flowers, striped with dark pink.



Also called: Fairy-Spuds, Good-Morning-Spring, Wild-Potatoes, Musquash.

Named for British-born Virginia botanist John Clayton.

Edible: These dainty heralds of spring form large colonies, spreading underground by means of bulb-like swellings just above the roots. Spring Beauty corms look like small new potatoes and taste like sweet chestnuts when boiled in salt water, are palatable and nutritious, tedious gathering, though, as it takes a great many to make a satisfying meal.

STAR CHICKWEED *Stellaria pubera* Pink Family

Description: White flowers with deeply cleft petals are in clusters at the tip of an erect stem and arising from the leaf axils. Stems with two lines of hairs.

Name: Latin *stellāris* ‘starry’; *pubera* ‘downy’.

Edible: The weak, reclining stems and tender leaves may be added raw to salads but they taste best when boiled briefly in salted water and served in place of spinach. More vitamin C than oranges.

Comment: Five split, pointy petals look like ten petals, with red tips on stamens. Because chickweeds stay green beneath the snow, they can be important for winter survival—for both animals and humans. With star-like flowers, this is the showiest of the many chickweeds.



TRILLIUM *Trillium* Lily Family

There are 30 species of trilliums.

Three leaves, three green sepals, three colored petals and (surrounded by six stamens) a three-chambered pistil topped by three spreading stigmas—unmistakable marks of the trilliums, whose name comes from the Latin for “three.”

Insects are attracted to the flowers’ fetid odor—faint in such species as the Large White Trillium (Ontario’s floral emblem) and strongest in the aptly named Stinking Benjamin.

Wake-Robin, a name applied to many spring flowers, alludes perhaps to the danger of rousing the goblin Robin Goodfellow if the flower is picked, or to the plant’s reputation as an aphrodisiac (“a use of Robin as a pet name for the penis”).

LARGE WHITE TRILLIUM *Trillium grandiflorum*

Description: large, solitary waxy-white flower (turning pink with age) is on an erect stalk above a whorl of three broad leaves.

Also called: Bathflower, Butter Lily, White-Lily.

Native Americans: Among the Menomini Indians, this root was used to reduce the swelling of the eye. The raw root is grated and applied as a poultice to the eye. For cramps, it is grated, steeped and drunk as a tea.





Medical: For irregularity of the menses, this root is grated, simmered in water, then drunk.

Comment: One of the most amazing things about White Trillium is its fruit. It is a rounded, light-green capsule on the end of a long stalk. The capsule is about an inch in diameter, and as the seeds mature, the pressure of their expansion splits it open at one side. At the same time, the fruit-bearing stalk bends down to one side, bringing it closer to the ground. The seeds are sticky and fall out of the capsule in clusters. When they do, you can see that each seed has a light-colored crest of other material attached to it. Ants are very attracted to this and carry it along with the attached seed back to their nests. They eat part, discarding the seeds in the vicinity of the nest. Ants have carried seeds as much as thirty feet from the plant.

It takes a minimum of six years under good conditions for a white trillium to produce its first bloom.



STINKING BENJAMIN *Trillium erectum*

Description: The solitary, nodding flower, with an unpleasant odor, rises on a stalk above a whorl of 3 broadly ovate, diamond-shaped leaves.

Name: Benjamin is a corruption of benjoin or benzoin (originally an Arabic word for 'incense of Java') for the ill scent of the flowers.

Also called: Bathroot, Bloody-Nose, Brown-Beth, Daffy-Down

Lily, Herb-True-Love, Nosebleed, Red-Death, Squawflower, Wild-Peony.

Comment: The flesh fly finds this raw-meat color of the flower as acceptable as the odor and is the most useful pollen disseminator.



TOADSHADE/RED TRILLIUM *Trillium sessile*

Also called: Beefsteak, Bloody-Butchers, Nosebleed

Name: *Sessile* means 'unstalked, attached at the base'.

Flower: less conspicuous than other trilliums.



YELLOW TRILLIUM *Trillium luteum*

Description: Yellow, lemon-scented flowers and mottled leaves. Usually southern and midwestern areas.

Name: *Luteum* means 'yellow'.



TROUT LILY/DOGTOOTH VIOLETS *Erythronium Americanum*

Description: A pair of brownish-mottled leaves sheathe the base of a stalk that bears a solitary, nodding flower, yellow inside, bronzy outside. A perfect flower with 6 stamens and a pistil, with brownish

or yellow anthers. The two leaves, elliptical, nearly stemless, proceed from the root.

Also called: Yellow Adder's Tongue, Fawn Lily, Jonquil, Serpent's Tongue, Wild Yellow Lily, Yellow Bells etc. Most meaningful name would be "trout lily" since it blooms along trout streams and its leaf is as mottled as a trout's back (John Burroughs, 1894). In 1672 Josselyn called it "Yellow-bastard Daffodil."

Name: from Greek *erythros* 'red', for the color in some Eurasian species.

Edible: The young bulbs of Trout Lily can be eaten raw or cooked.

Comment: especially adapted to long-tongued insects, cross-fertilized by early bees.

VIRGINIA BLUEBELLS *Mertensia virginica* Forget-Me-Not Family



Description: Erect plant with smooth gray-green foliage and nodding clusters of pink buds that open into light blue trumpet-shaped flowers.

Also called: Bunchflower, Gentlemen's-Breeches, Old-Ladies' Bonnets, Puccoon, Virginia Lungwort.

Named for German botanist Franz Karl Mertens.

Comment: Never limited in range as its name implies, the English name it at a time when they still referred to Massachusetts as North Virginia.

WILD BLEEDING HEART *Dicentra eximia* Poppy Family

Description: Several deep pink to red drooping, heart-shaped flowers are strung along a leafless stem.

Name: from the Greek meaning twice-spurred; *eximia* means extraordinary.

Flowers: The two deeply rounded spurs form a heart from which "a drop of blood" drips between two flaring wings. Rounded outer petals form the "heart" while inner petals form the "drop of blood."

Leaves: Intricately cut, large and smooth.

Comment: Flower is cross-fertilized, mostly by early bumblebees. Honeybees collect only pollen; their tongues are too short to reach the nectar. The proboscis of the bumblebee, 8 mm long, reaches it, but that of the honeybee, 6 mm, cannot. Such a pendulous position as the flower compels is extremely difficult for insects other than bees to maintain. Butterflies are less successful but white cabbage and monarch butterflies do visit.

Ranchers called them Staggerweeds because cattle are poisoned by their toxic juices.



WILD GINGER *Asarum canadense* Birthwort Family

Description: Growing at ground level in the crotch between two leafstalks is a single darkish red-brown to green-brown cup- or urn-shaped flower. A curious wood-

land plant whose odd flower is half concealed by its low position and its sober color which frequently resembles the leaf-mould just beneath it.

Also called: Coltsfoot, Hazelwort, Black Snakeroot.

Edible: Humans dig the spreading underground rhizome, boil the pieces in sugar water 20–30 minutes, and use the decoction in place of true ginger. Nowadays wild ginger is more valued as an ideal groundcover than as an ingredient for making candy.

Name comes from an ancient Greek plant *asaron* ‘hazelwort, wild nard’.

Native Americans: It is said to be used by Indian females to prevent impregnation (1814). Eastern Indians drank an infusion to relieve heart pain and arrhythmia.

Medical: (1694) “Wenches use the decoction of it too frequently when they think they are with child.” Wild Ginger contains antibiotic substances effective against broad-spectrum bacteria and fungi.

Comment: The ground-hugging flowers have a fetid odor like rotting meat, and attract pollinating flies. After the seeds have formed, ants carry them away but eat only the seed coats, thus spreading the plant.

WINTERBERRY *Ilex verticillata*

Description: Native deciduous holly whose branches are lined with colorful ¼-inch berries from late summer into winter.

Name: Specific name *verticillata* means ‘whorled’.

Flowers: Before the berries appear, tiny white male and female flowers blossom—the females have faint marks on their petals. Each plant usually bears flowers of one sex, and although only those with female blossoms have fruit, both sexes are usually necessary for berry production.



Leaves: Elliptic, tapering to a sharp point, turning rusty brown in fall.

Comment: A bush laden with these berries after the leaves are dropped in the fall, shines like a red torch that signals birds to come eat and ultimately disperse the seeds. Birds such as woodpeckers, chickadees, blue jays leave them untouched. Migrating robins descent on the bush and leave not a single berry uneaten. Thus, winterberry caters to a select clientele of fall migrants and not to resident winter birds at all (Bernd Heinrich). Yet, *Flowering Shrubs* (Time-Life) says late-summer to mid-winter berries attracts bluebirds, brown thrashers, cardinals and cedar wax-wings.