

A LAYMAN'S GUIDE TO SPRING WILDFLOWERS

AT THE
FITZGERALD LAKE CONSERVATION AREA

compiled by

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INTRODUCTION

Over the past several years, I've become more and more intrigued by the succession of wildflowers that appear in the spring and summer. The Fitzgerald Lake Conservation Area affords an abundance of these wonderful plants and I started taking my camera along on hikes to try to capture their fleeting beauty. This in turn inspired me to share my photos with others in a context that relates some basic information about the flowers, their growth, their habitat and their reproduction. I've become particularly interested in the folklore associated with these plants and their use for food or medicinal purposes. I hope that this brief guide, compiled by a layman, will help you to identify a sampling of the many spring wildflowers that grow along the paths and in the woods and pastures of the FLCA. I confess that they are my favorites and the ones I look for every year; I realize that my coverage is patchy and that there are many others that merit inclusion. The photos were taken by me at the FLCA or on abutting land, but all can be found within the FLCA. I am greatly indebted to Connie Parks and Laurie Sanders for looking over preliminary versions of this guide and for offering numerous suggestions and corrections; while errors may persist, they are mine, not theirs!

Bob Zimmermann
May 2017

TERMINOLOGY

Although I have tried to keep the plant and flower descriptions non-technical, there are a few terms in the text that need a bit of explanation. **Annuals** and **biennials** are plants that complete their life cycles within one or two years, respectively, while **perennials** continue to grow and reproduce for three or more years; most New England wildflowers are perennials. **Petals** and **sepals** are both modified leaves. Petals, which surround the reproductive apparatus of the flower and are often brightly colored to attract pollinators, are in turn surrounded by sepals, which cover the flower bud; though often green, sepals are sometimes colored and resemble petals in which case they are called **tepals**. **Bracts**, yet another modified leaf type, are usually located at the base of a flower, and are generally green. In members of the arum family, such as skunk cabbage and jack-in-the-pulpit, a spike of tiny flowers are borne on a structure called a **spadix**, enclosed by large, thick bracts. Some leaves are arranged, in pairs, **opposite** to one another, while others occur singly in an **alternate** fashion, along the stem. Still others form a **whorl** of three or more leaves, circling the stem. The base of some leaves **clasp**, or entirely surround, the stem. Leaf characteristics can often be quite helpful in identification. The reproductive parts of a flower are known as the **pistil**, which contains the ovary, and the **stamen**, which produces pollen containing the male gametes. Seeds are packaged in a **fruit**, including **capsules** or **follicles** that split open to release the seeds at maturity and fleshy **berries** that are often consumed and dispersed by animals (and humans!). The underground parts of perennials, such as **rhizomes**, **tubers**, **corms** and **bulbs**, store nutrients to promote regrowth of the plant in spring or summer and in many cases account for asexual reproduction. **Rhizomes** are modified, fleshy stems that grow horizontally underground and contain multiple buds that can give rise to new plants; these structures account for the spread of many wildflowers (and are responsible for the invasiveness of numerous non-native plant species). **Tubers**, also derived from stem tissue, are enlarged, fleshy structures with buds scattered over their surface from which shoots (and roots) develop. **Corms** are solid structures that form at the stem base and generally produce a single bud or shoot, while **true bulbs** consist primarily of modified leaves with many layers, like an onion, and a single bud from which the plant develops.

SKUNK-CABBAGE (*Symplocarpus foetidus*)



- Family: Araceae (Arum)
- Height: 1-2'
- Flowers: 3-6"-long greenish- purple, leaf-like bract or *spathe*, enclosing a *spadix*, a spike covered with tiny flowers
- Leaves: ½-2' long, basal, ovate, arising after flowers
- Fruit: Fleshy berries with two or more seeds that develop within the spadix
- Flowering: Late February-early April
- Habitat: Swamps, marshes, along streams
- FLCA Location: Marshy areas near bridge, boardwalk
- Reproduction: Pollinated by flies and other insects; also spreads via rhizomes
- Name: Specific name reflects fetid odor which lures insects otherwise attracted to rotten meat
- Notes: Heat from spadix respiration can melt snow around the plant; used by Native Americans to treat respiratory illnesses, epilepsy and scurvy

VIOLET

(*Viola spp.*)



- Family: Violaceae (Violet)
- Height: 3-6"
- Flowers: ½-¾" wide, 5 petals, violet-blue
- Leaves: 1-3" long, heart-shaped, basal leaves, with flowers on separate stalks
- Fruit: ~½" long capsule
- Flowering: April-May
- Habitat: Damp woods and meadows
- FLCA Location: Lakeside Trail
- Name: The color violet derives its name from this family of flowers
- Notes: The violets comprise a complex of closely related species and are often hard to identify. The photo likely depicts *V. sororia* or woolly blue violet; in general, leaves can be used in salads or cooked as greens, and flowers can be eaten in salads as well; many romantic myths and legends are associated with violets

MARSH-MARIGOLD

(*Caltha palustris*)



- Family: Ranunculaceae (Buttercup)
- Height: 1-3"
- Flowers: 1-1½" wide, 5 petal-like sepals; bright, shiny yellow
- Leaves: 2-5" long, heart- or kidney-shaped with shallow teeth, dark green
- Stem: Hollow
- Fruit: ~½" long follicle splits open when ripe
- Flowering: April-early May
- Habitat: Stream borders, marshes, swamps wetland margins
- FLCA Location: Along streams
- Name: *Caltha* means "goblet" (Grk) and *palustris* means "of the marsh" (Lat); also called kingcup or cowslip
- Folklore: Leaves are edible, but require repeated boiling to remove toxins; also used for medicinal purposes by Native Americans

RED OR PURPLE TRILLIUM (*Trillium erectum*)



- Family: Melanthiaceae (Death Camas)
- Height: 8-16"
- Flowers: 2½" wide, 3 petals, burgundy; occasionally pink or white
- Leaves: 2-7" long; ovate, diamond-shaped, in whorls of 3
- Fruit: Oval, reddish berry, ~½" long
- Flowering: April-May
- Habitat: Moist deciduous forests, floodplains
- FLCA Location: Scattered throughout forested areas
- Pollination: Carrion flies
- Name: *Trillium* refers to the organization of flower parts and leaves in groups of 3; also known as red wakerobin, stinking benjamin, nosebleed, wet-dog trillium, birthroot
- Folklore: This malodorous plant was used by early herbalists treat gangrene, a malodorous disease¹; also used by Native Americans to stimulate birth

AMERICAN TROUT- LILY (*Erythronium americanum*)



- Family: Liliaceae (Lily)
- Height: 4-10"
- Flowers: 1-2" wide, 3 petals and 3 sepals, curved backward; bright yellow, one per plant
- Leaves: 2-8" long, basal or opposite, elliptic, green mottled with brown
- Fruit: ~½" long, capsule containing ≥ 2 seeds
- Flowering: April-early May
- Habitat: Rich, moist woods; margins along forest edges
- FLCA Location: Lakeside Trail
- Name: Common name refers to similarity of leaf mottling to those of trout; also, dogtooth violet, a reference to its tooth-shaped bulb or adder's-tongue for its protruding stamens
- Folklore: Juice from crushed leaves used by Cherokees to help heal wounds and a leaf infusion to reduce fever; Iroquois women allegedly ate raw plants to prevent conception.

JACK-IN-THE-PULPIT (*Arisaema triphyllum*)



- Family: Araceae (Arum)
- Height: 1-3'
- Flowers: 2-3"-long, erect spike or *spadix*, with tiny flowers, enclosed by greenish-purple, often striped, hood or *spathe*
- Leaves: Three 4-6"-long, ovate leaflets per leaf on 1 or 2 long, basal stalk(s), veined
- Fruit: Cluster of fleshy red berries on spadix; also spread via underground tubers
- Flowering: April-June
- Habitat: Woods, swamps, floodplains, wetlands
- FLCA Location: Wetlands
- Pollination: Fungus gnats, flies
- Name: *triphyllum* refers to trifoliate leaf; also known as false turnip, devil's ear, dragon root
- Folklore: Tuber used by Native Americans as vegetable but only after cooking to remove calcium oxalate; also used widely for medicinal purposes; one tribe is said to have used it to poison foes

WOOD ANEMONE

(*Anemone quinquefolia*)



- Family: Ranunculaceae (Buttercup)
- Height: 4-8"
- Flowers: 1" wide; 5 petal-like sepals, white
- Leaves: whorls of 3, usually divided into 5 lobed, toothed leaflets, each 1¼" long
- Fruit: Hairy, ~1⁄8" long achene, in globular clusters; also spreads via rhizomes
- Flowering: April-May
- Habitat: Moist woods, stream margins and wooded swamps
- FLCA Location: Fishing Place Trail
- Pollination: Provides nectar for early pollinators
- Name: *Anemone* means "daughter of the wind" (Grk); *quinquefolia* refers to the division of the leaf into 5 leaflets; also, wood windflower
- Notes: This early spring flower, which can form extensive carpets over the forest floor, does not seem to have found a practical use, perhaps because of its poisonous nature

FOAM-FLOWER

(*Tiarella cordifolia*)



- Family: Saxifragaceae (Saxifrage)
- Height: 6-12"
- Flowers: ¼" wide, 5 petals, white, in elongated terminal clusters of 15-50 per stem, protruding stamens
- Leaves: 2-4" long, on basal stalks, lobed and sharply toothed
- Fruit: ~⅓" long capsules containing 4-15 seeds; spreads via rhizomes
- Flowering: April-May
- Habitat: Rich, moist woods, wetland margins
- FLCA Location: Off Lakeside Trail
- Pollination: Bees, flies, butterflies
- Name: *Tiarella* derived from Grk *tiara* (turban), *cordifolia* means "heart-leaved"; also known as coolwort, false miterwort
- Folklore: Native Americans used leaf infusions for eye ailments and as a mouthwash

FRINGED POLYGALA

(*Polygala paucifolia*)



- Family: Polygalaceae (Milkwort)
- Height: 3-7"
- Flowers: $\frac{3}{4}$ " long; 5 sepals, 2 of which form "wings", and 3 petals forming a tube that terminates in a fringe; pink
- Leaves: $\frac{3}{4}$ -1 $\frac{1}{2}$ " long, alternate, oval, clustered at top of stem
- Fruit: $\frac{1}{4}$ " long capsule, spherical, containing 2 or more seeds; also spreads via rhizomes
- Flowering: May-June
- Habitat: Moist woods
- FLCA Location: Lakeside Trail
- Name: From *polys* (much) and *gala* (milk) (Grk); also called fringed milkwort, gaywings
- Folklore: Believed to increase milk production if eaten by nursing mothers or cows; used by Iroquois as poultice to soothe boils, sores and abscesses

STARFLOWER
(*Lysimachia borealis*)



- Family: Myrsinaceae (Marlberry)
- Height: 4-8"
- Flowers: ½" wide, usually 7 petals (range 5-9), white with golden anthers
- Leaves: 2-4" long, whorled, lanceolate
- Fruit: spherical capsule containing 2 or more seeds
- Flowering: May-August
- Habitat: Moist woods
- FLCA Location: Forested areas
- Reproduction: Seeds; also spread via rhizomes resulting in clusters of starflowers
- Name: Derived from *Lysimache*, a priestess in ancient Greece
- Notes: Striking as a carpet of starflowers is, there is apparently little or no folklore associated with this plant: no reports of medicinal use were found and it does not appear to be edible

CANADA-MAYFLOWER

(*Maianthum canadense*)



Family: Rusceae (Butcher's Broom)

Height: 2-6"

Flowers: ~ $\frac{1}{8}$ " long, 2 petals, 2 petal-like sepals, white, 12-25 flowers in dense clusters

Leaves: 1-3" long, alternate, ovate, shiny, pointed at tip, lobed at base; tightly coiled when they first emerge

Stem: Zig-zagged, 1-3 leaves

Fruit: ~ $\frac{1}{4}$ " berries, initially green but turning red in fall; also spreads via rhizomes

Flowering: May

Habitat: Upland woods

FLCA Location: Off Lakeside Trail

Name: *Maianthemum* means "May blossom" (Lat); also called false lily-of-the-valley

Folklore: Native Americans are reported to have used this plant for headache and sore throats; rhizome carried for good luck

BLUETS

(*Houstonia caerulea*)



- Family: Rubiaceae (Bedstraw)
- Height: 3-6"
- Flowers: ½" wide, 4 petals, pale blue with yellow centers
- Leaves: Oblong basal leaves, ~½ long in tufts; stem leaves are tiny, opposite
- Fruit: ~1/8" long capsule; opens when ripe
- Flowering: April-June
- Habitat: Grassy fields, paths
- FLCA Location: Cooke's Pasture
- Name: Diminutive of blue; also known as, Quaker ladies, innocence
- Notes Surprisingly, blueets are in the same family as partridgeberry and button-bush, an aquatic shrub found on the edges of the Broad Brook marsh
- Folklore: The Cherokee are said to have used an infusion of blueets as a cure for bed-wetting²

PINK LADY'S-SLIPPER

(*Cypripedium acaule*)



- Family: Orchidaceae (Orchid)
- Height: 6-15"
- Flowers: 1½-2½" long pink lip petal; greenish-brown side petals; 1 flower per plant
- Leaves: 4-10" long, basal, oval, ribbed, in pairs
- Stem: Leafless
- Fruit: Capsule up to 1¾" in length; also spread via rhizomes
- Flowering: April-July
- Habitat: Moist, rocky, acidic woods, esp. pine; wetlands
- FLCA Location: Woods south of Fitzgerald Lake
- Pollination: Bumblebees
- Name: *Cypripedium* means "Venus' slipper" (Lat); also called moccasin-flower
- Folklore: Rhizomes were used by Native Americans for treating nervous diseases, insomnia and hysteria

WILD GERANIUM
(*Geranium maculatum*)



- Family: Geraniaceae (Geranium)
- Height: 1-2'
- Leaves: 4-5" wide, opposite, palmate, with deeply toothed lobes
- Flowers: 1-1½" wide, 5 rounded petals, pink
- Fruit: 1-1½" beaked seed capsule; also spreads by rhizomes
- Flowering: April-June
- Habitat: Rich moist meadows, open woods
- FLCA Location: Cooke's Pasture
- Name: From *geranos*, meaning crane (Grk), referring to shape of seed capsule; also, spotted geranium, spotted crane's-bill
- Folklore: Used by Native Americans to treat diarrhea, gum disease and inflammation of various kinds; rhizome is rich in tannin and is said to have been used by early American settlers to tan hides³

RAGGED ROBIN

(*Lychnis flos-cuculi*)



- Family: Caryophyllaceae (Pink)
- Height: 1-2'
- Flowers: 1-1½" wide, 5 petals, deep pink, cut into 4 lobes, hence *ragged*
- Leaves: 2-3" long, opposite, lanceolate, untoothed; size decreases toward top of stem
- Stem: Sticky near top, downy below
- Flowers: 1-1½" wide, 5 petals, deep pink, cut into 4 lobes, hence *ragged*
- Fruit: ¼-½" long upright capsule
- Flowering: May-early June
- Habitat: Wet fields, meadows, roadside margins
- FLCA Location: Cooke's Pasture
- Name: *Lychnis* derives from Greek "flame;" *flos-cuculi* means "cuckoo flower" (Lat); also known as cuckoo flower
- Note: This plant was introduced from Europe in the 19th century but has become naturalized in the Northeast^{1,2}
Not considered invasive...yet.

BLUE FLAG IRIS

(*Iris versicolor*)



- Family: Iridaceae (Iris)
- Height: 2-3'
- Flowers: 2½-4" wide, 3 petals and 3 petal-like sepals; violet-blue; yellow at base of sepal
- Leaves: 8-32" long, ½-1" wide, sword-like ; leaves arise from basal cluster
- Fruit: 1-2½", 3-lobed capsule; also spreads via rhizomes
- Flowering: May-June
- Habitat: Stream margins, marshes, meadows
- FLCA Location: Edges of Broad Brook marsh
- Pollination: Insects
- Name: *Iris* means "rainbow" (Grk); flag from Middle English flagge, "rush" or "reed"
- Folklore: Small amounts dried rhizome were used by Native Americans and colonists as diuretic and cathartic; poisonous in large amounts; also used to treat external sores

SOURCES

General

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Individual Plants

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