Hickory Hill

Wild Flower Guide

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WILD FLOWER GUIDE

This book is designed to acquaint you with the wild flowers found at Hickory Hill Park. It is also intended to serve a recreational and educational function that hopefully will promote an understanding and appreciation of things that are yet wild. It is because of the wild things and those who follow behind you that we invite you to look and enjoy but please do not pick and destroy.

The plants described and illustrated in this field guide are all common to the area. Of the seventy two mentioned, well over half are plants that have come from other lands and other places and are therefore not native to the area. These non-natives are sometimes called weeds, since there is little agreement as to what a weed is we prefer to call them aliens.

Obviously this guide does not include all the plants found at Hickory Hill. However, those included should be relatively easy to seperate and identify. In order to use the guide effectively one must find a plant in flower, determine the color of that flower, match that color with a page color in the guide book and in turn match the description and illustration accordingly. This color key method is not fool proof but it is simple-and it does work most of the time.

Included in our guide is a brief mention of goldenrods (Solidago). It is not our intent at this point to confuse the issue by including this information but merely to point out the fact that there are goldenrods and there are (other) goldenrods. In any case, few separate species of goldenrods are found at Hickory Hill but those present could pose an interesting challenge to anyone willing to try his hand at finding out which is which. Good luck.

For those who are inclined to be confused by technical terms we have included a glossary of terms for your convenience. Should the confusion persist, let us suggest to you that one good picture or illustration is worth many words. Therefore, concentrate on the illustrations; its simple but effective.

It is only fair to note here that the descriptive material and the illustrations used in this field guide are from many sources and are not entirely of our own doing. With this in mind, we invite you to explore some of the reference material relating to wild flowers that we have listed for you. In so doing you may not only discover our sources but you may also open up a whole new field of fascination and discovery. Good hunting.

References

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Poison Ivy — Taxicodendron rodicans

Either a non-climbing woody shrub or a vine climbing along the ground, on low plants, or high in trees or on poles; leaves alternate, with three leaflets, each hairless or slightly hairy, the margin not toothed, with small teeth or variously lobed; flowers and fruits in hanging clusters, the fruit a yellowish drupe, not hairy. Each leaflet is about three inches long the lateral leaflets are short-stemmed, the terminal leaflet is longer-stemmed.

Poison ivy is commonly vine-like, either running along the ground or climbing by aerial roots on trees or fences; in the first instance, the woody portion may be hidden in the grass and only an occasional leaf is visible. Poisonivy (more typically poison oak) also may be upright and shrubby, especially along roads where it is frequently cut back.

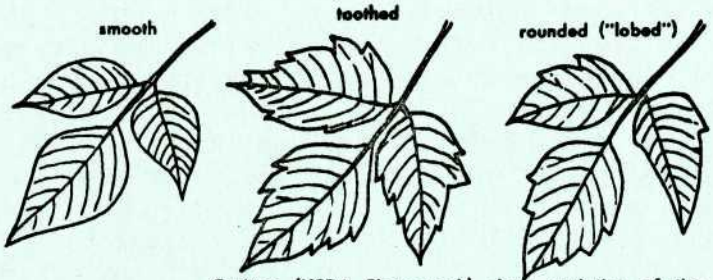
Every year nearly two million people in the United States experience irritating or painful effects from indirect or direct contact with poison ivy, poison oak or poison sumac. One out of every two persons is allergic to some degree.

The skin irritant is present in the sap, which is found in the roots, stems, leaves, pollen, flowers and fruits. The sap is released by bruising a portion of the plant. The greatest danger of poisoning is in spring and summer when the sap is abundant.

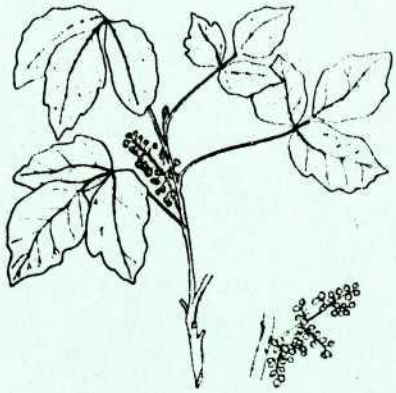
In addition to direct contact with the plants, the irritant may be spread by dogs, cats, or other animals; by contaminated clothing, garden or yard tools, or sports equipment such as golf clubs, guns, or fishing rods; or by accidental eating of the fruits. The irritating chemical is not volatile, but droplets may be carried in smoke, on dust particles or ash. It is therefore dangerous to be in the smoke of burning plants. The pollen is blown by wind, and it is possible for a susciptible person to contact the poison merely by being near the plant when the pollen is in the air.

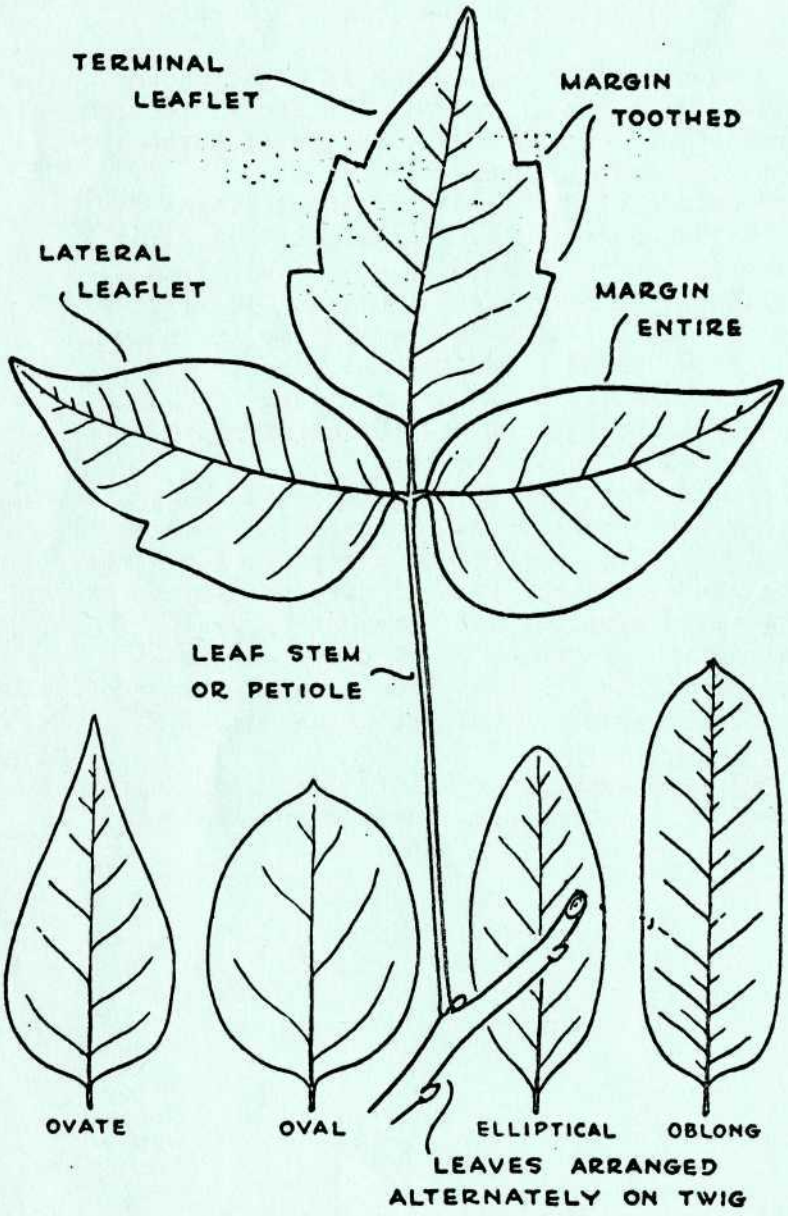
After contact, the first symptoms are itching, burning, redness, and small blisters. Symptoms may appear within hours or as much as five days depending on the individual. Severe dermatitis, with large blisters and local swelling may remain for several days and may require hospitalization. Persistent symptoms and apparent spread are generally due to new contacts with plants or previously contaminated objects, or possibly by spread of the irritant from scratched affected skin areas and broken blisters. Secondary infections may occur when blisters are broken.

In case of contact, immediate washing with strong soap will often prevent the symptoms. If severe symptoms occur, see your physician.

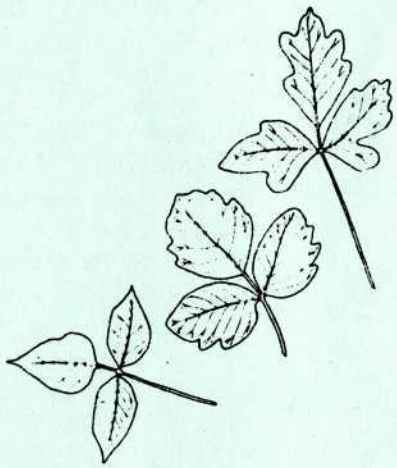


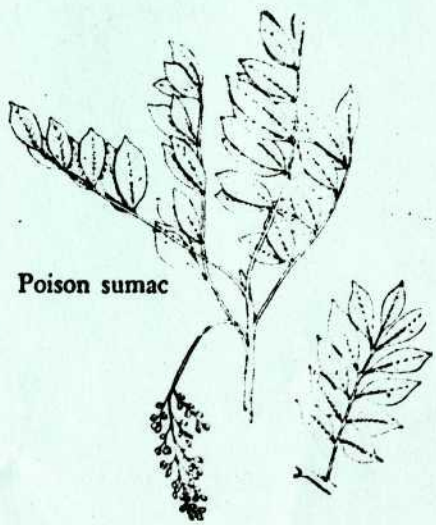
Outlines (USDA Photograph) show variation of the leaflet margin; the lobed form is similar to poison oak.



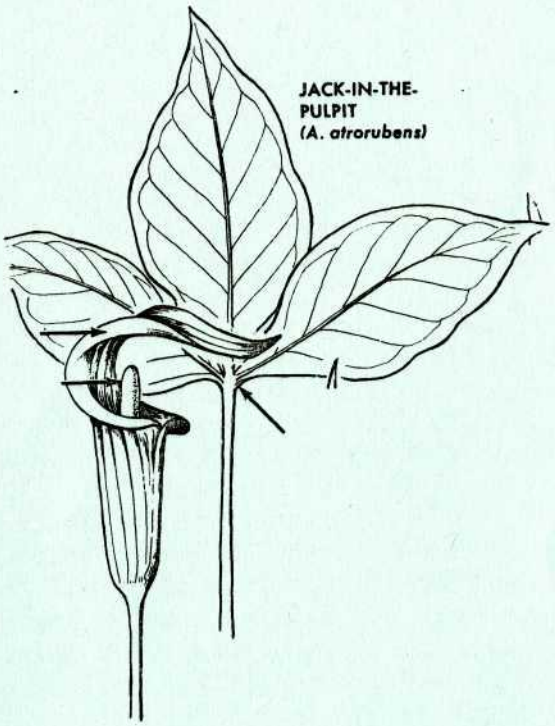


Illustrations of various leaf features used in describing poisonivy and poisonsumac.





Poison sumac



Jack-in-the-Pulpit, Indian turnip
Arum Family (Araceae)
Arisaema triphyllum

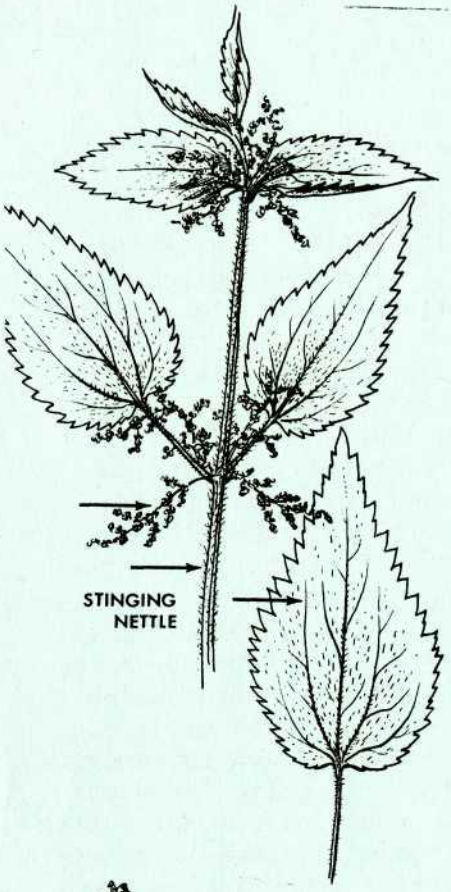
The flaplike spathe is green or purplish-brown, often striped and curves gracefully over the club-shaped spadix (the Jack or preacher in his canopied pulpit). Flowers tiny, at base of spadix on separate plants. Leaves 1 or 2 , long-scarlet berries, 1-3 feet tall. The bulb or corm, is slightly flattened or turnip-shaped, with numerous rootlets around the outer edge. It is starchy, but at the same time is the most stinging, burning thing to be found in the woods. It is claimed that the Indians removed the burning taste by boiling, after which these roots were cooked with venison. This was tried and found not to remove the pungent taste. If dried for several weeks the acrid condition naturally left and the starch became pleasant and nutritious. It grows in rich woods, often where it is slightly moist. It may be collected in spring and in summer. (for experiment) April - June.

Sheep or Common Sorrell — Rumex acetosella
Buckwheat Family (Polygonaceae)

Note the small, arrow-shaped leaves with spreading lobes. A most troublesome small weed from the Old World, with long arrowhead-shaped leaves acid to the taste, and inconspicuous flowers in branching spikes, green, or later brown-red; the whole plant sometimes turning ruddy in dry, sterile fields. It will generally flourish in one place for two or three years and then die out. It grows from 4-12 inches in height along thin fields, roadsides, acid soils. June - October.

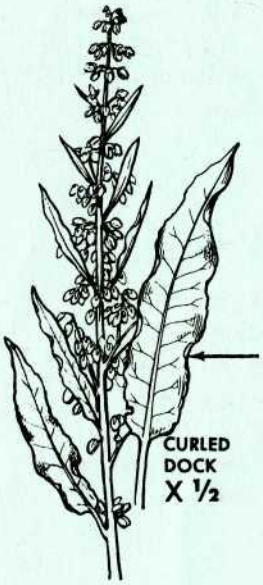
Garden Sorrell — Rumex acetosa
Buckwheat Family (Polygonaceae)

Larger than Sheep Sorrel. It has its upper leaves clasping the stem. Flowers are in spikes and larger but more compact. Grows 6-24 inches along fields and roadsides. June to October.



Stinging Nettle Urtica Dioica
Nettle Family (Urticaceae)

Do Not Touch! A weed densely covered with coarse, stingin hairs. Plant has heart-shaped, coarsely toothed leaves. Tiny greenish flowers are on slender, interrupted clusters in ten leaf axils; staminate and pistillate flowers often on separate plants. Stem hollow, 4-sided. Grows 2-4 feet. Poisoning is an intense burning and itching or stinging of the skin persisting for various length of time. The stinging hairs have a mechanism similar to a hypodermic. There is a very fine capillary tube, a bladder-like base filled with the chemical irritant, and a minute spherical tip which easily breaks off on contact, leaving a very sharp-pointed tip which easily penetrates the skin. Roadsides, waste grounds, light soils. June - September.



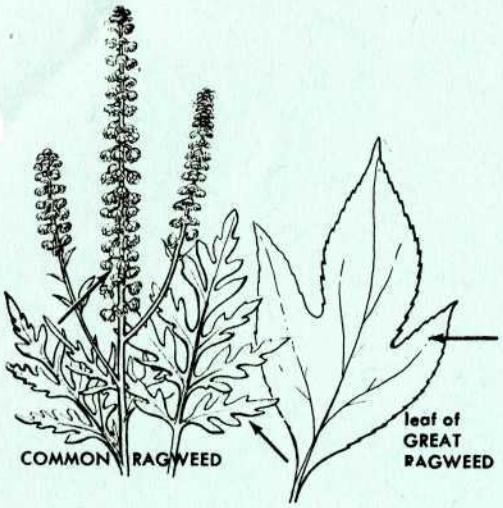
Curled Dock Rumex crispus
Buckwheat Family (Polygonaceae)

The Curled Dock is a very common, often troublesome weed in waste places. It is native of Europe and Asia but was early introduced into America and is now found nearly throughout the United States.

It is a smooth, dark green plant, one to three feet tall, with a deep yellow root. The leaves are nearly all at the base. They are oblong or lanceolate, six inches to a foot long, generally with a slightly heart-shaped base. The margins are wavy or curled. The stem leaves are similar in shape and appearance to those at the base but only about half the size. The greenish flowers are arranged in whorls in panicled racemes. Housewives often prefer to mix the greens, using dock, dandelions, and the tender tops of Horse-Radish or Mustard. June - September.

Lamb's-Quarters, Piqiuced, Goosefoot Chenopodium album
Goosefoot Family (Chenopodiaceae)

Leaves mealy-white beneath, varying from rhombic-oval to lance-shaped or narrower, the lower ones coarse-toothed. The green flower-clusters are dense, and dull green. The name from the Greek meaning goose and foot, in allusion to the shape of the leaves of some species. The Lamb's Quarters is a native of Europe and Asia but was early introduced into this country and is now found all over North America except the extreme north. It is probably the most common weed that might be used as human food. When small, six to ten inches high, the plants are succulent and tender, and in that stage are very desirable as a potherb. Its a variable plant ranging from 1-3 feet found along roadsides, fields, waste ground. June - October.

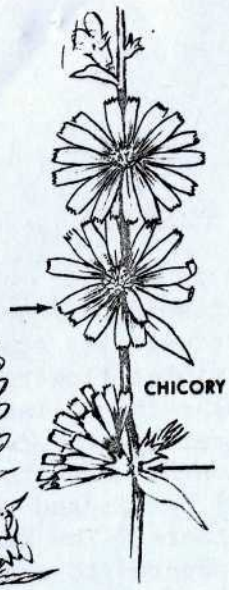


Great Ragweed — Ambrosia trifida
Composite Family (Compositae)

Perhaps the tallest member of the Composite group. Stem stout, hairy or nearly smooth, and filled with a frostlike pith; leaves deeply three-lobed and sharp-pointed, the teeth irregular and acute. The insignificant small flowers form a terminal, pointed cluster (these are staminate), or spring from between the opposite-growing leaves and the stem (these are usually pistillate). Grows from six to fifteen feet. July - September.

Common Ragweed — Ambrosia artemisiifolia
Composite Family (Compositae)

A common weed with remarkably ornamental, cut leaves. An annual with a much-branched, fine hairy stem and thin, lifeless light green, dissected leaves. The slender spikes of the green staminate flowers are numerous and somewhat decorative. The tiny fruit is furnished with six short acute spines. Grows one to five feet high and is a troublesome weed of dooryards and gardens everywhere. August - October.

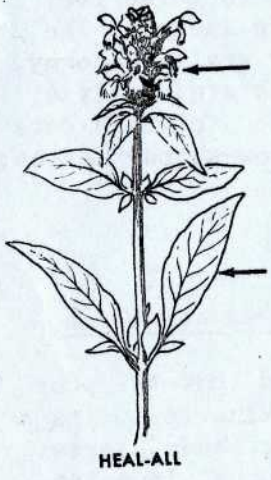


Chicory — Cichorium intybus
Composite or Daisy Family (Compositae)

Chicory is a European plant which has escaped from cultivation to become a common but attractive wild flower of fields and roadsides. Stem stout, tough, and stiff, with generally lance-shaped, dark gray-green, coarse-toothed leaves. The flower is similar to dandelion, but violet, it closes in rainy or cloudy days and opens in sunshine. The heads are solitary or few in a cluster and on short thickened branches. In the spring the leaves are used as a potherb. The ground roots are roasted and used as a substitute or adultemont of coffee, or sometimes merely to flavor coffee. They grow to four feet and are quite widespread. June - October.

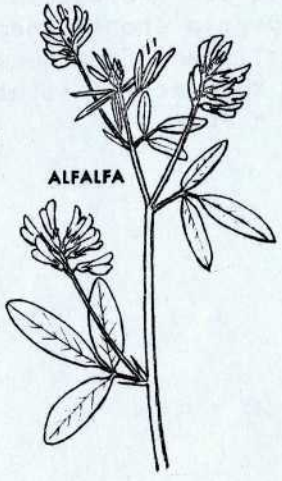
Great Lobelia — Lobelia siphilitica
Bluebell Family (Lobelioideae)
Labellia Subfamily

Great Lobelia is a tall and stiffly erect plant with angular stems which produce basal offshoots. Thus the plant survives the winter as a perennial. The leaves are light green, 2-6 inches long, pointed at both ends, nearly if not quite smooth, irregularly toothed, and stalkless. The light blue-violet or rarely white flowers nearly an inch long; the calyx stiff-hairy. One to three feet high. Common in low moist ground and margins of woods, in neutral or somewhat acid soil. August to September.



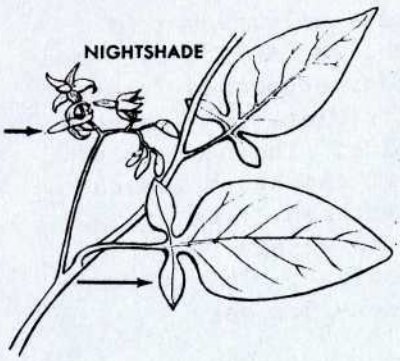
Heal-All, Selfheal — Prunella vulgaris
Mint Family (Labiatae)

Low or creeping, with ovate, slightly toothed or toothless leaves. Flowers violet, hooded, lower lip fringed; crowded among bracts in a square or oblong head. Grows from 3 to 12 inches along roadsides, lawns and waste ground. Flowers appear violet to blue. May - September.



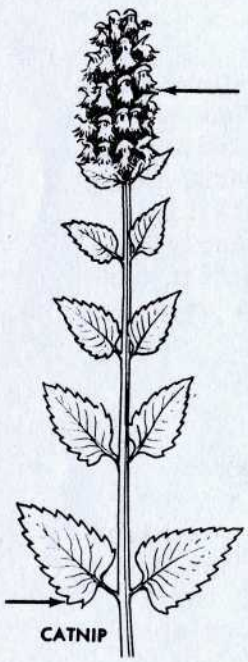
Alfalfa, Lucerne — Medicago sativa
Pea Family (Leguminosae)

This perennial is much cultivated for fodder and naturalized from Europe. Found in dry fields and sandy wastes in the east. The three leaflets are long and narrow, toothed toward the tip which is obtuse, and furnished with a tiny sharp bristle; each leaflet has a distinct stalk, and that of the middle leaflets is bent upward. The purple florets is bent upward. The purple florets in short clusters. 12 - 25 inches high. Spirally twisted seed pods containing many seeds. May - October.



Nightshade, Bittersweet Solanum dulcamara
Tomato Family (Solanaceae)

This sprawling, slender, woody vine is another European species which has established itself on fences and hedgerows throughout the eastern states. Its orange-red berries are more familiar than its violet flowers. Dark green leaves from ovate to triangular in outline, some lobed and others formed of three leaflets,the two lateral ones quite small, all without teeth. Note the five swept-back violet (sometimes white) petals and the protruding yellow beak formed by the anthers. The fruit (at first green) an oval, translucent ruby-red to orange berry,hanging or drooping in small clusters. The peculiar name "bittersweet" arose from the experience of early naturalists who claimed the roots tasted bitter when first chewed, later tasted sweet. Grows 2-8 feet high, in moist thickets and by waysides nearly everywhere. May - September.

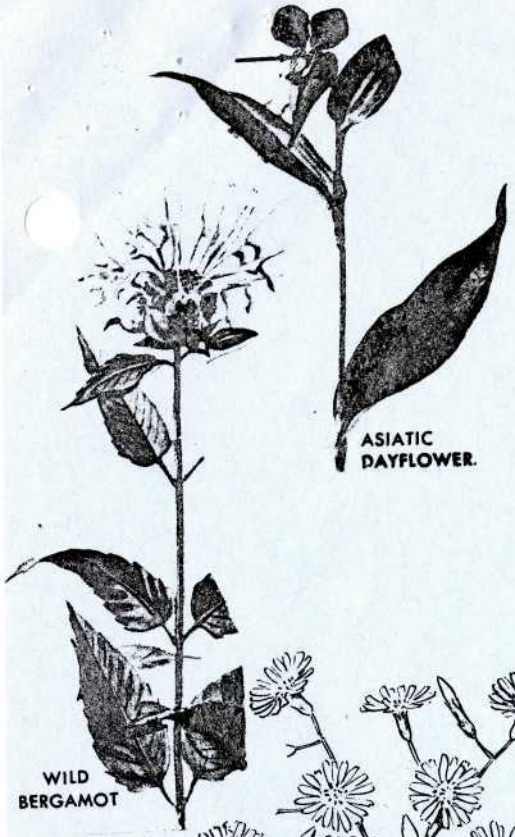


Catnip Nepeta cataria
Mint Family (Labiatae)

This European species has escaped to become a wild flower and weed over much of the country. Grows two to three feet high, pungent smelling with long-stemmed ovate leaves. The pale lilac or lilac-white and spotted flowers are also downy, and gathered in small terminal clusters, which are rarely 4 inches long. The leaves are strongly aromatic to which cats are attracted. Note the stalked, jogged, arrow-shaped leaves; whitish beneath. June - September.

Ground Ivy, Gill-Over-The-Ground Glechoma hederacea
Mint Family (Labiatae)

Introduced from Europe. It is said that the poor in England often use the leaves for making tea. Its a small creeping plant common in all moist shady places. It takes the place of our Trailing Arbutus, in moist fields of England in April, but often a pestiferous weed here. Flowers are two lips , the upper one two cleft, and the lower, three-cleft and pale purple spotted near the throat. Deep green leaves are scalloped often heart shaped and stained magenta. It takes root at the joint and often reaches three feet. April - July

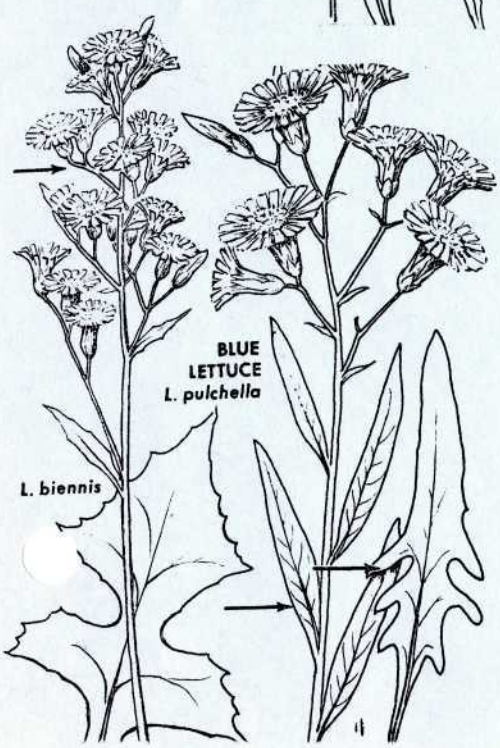


Asiatic Dayflower — Commelina communis
Spiderwort Family (Commelinaceae)

A native of Asia, the dayflower (so named because of the short life of its blooms) has escaped to become a wild flower of roadsides and ditches. Dayflowers die to the ground each winter, but survive in the underground tubers, which are provided with many fibrous roots. It is a sprawling plant with the habit of forming roots at the nodes of the jointed stems; the simple lanceolate leaves of a smooth dark green, sheath the stem and are three to five inches long. The flowers, produced near the tips of the branches throughout the summer months, are characterized by an irregular corolla and calyx. Two of the three unequal blue petals are larger than the third. In the Autumn the flowers become transformed into small capsules, each containing several brown seeds. June - October.

Wild Bergamot — Monarda fistulosa
Mint Family (Labiatae)

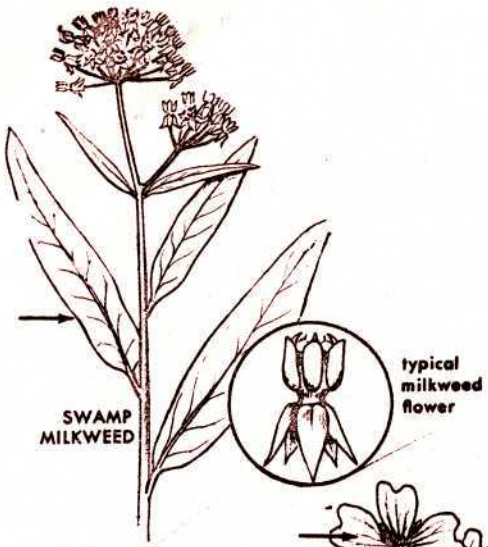
Downy, slender stem, and deep green leaves, the upper ones somewhat stained with the pure pale lilac or whitish tint which characterizes the flower-bracts. The leaves are more lanceolate, however, and the bracts below the flower cluster may be whitish or purple. The tip of the upper lip of the coralla is hairy. In some localities it is known as Horse-mint. Wild Bergamot grows in dry woods and clearings and uplands. It grows from 2-3 feet high. July - August.



Blue Lettuces — Lactuca biennis
Composite Family (Compositae)

Plants of the genus Lactuca are tall and leafy, with loose panicles of many small flowers that may be blue, yellow (often drying to blue), or white. There is much variation requiring critical identification.

Lactuca biennis is the tallest member of the genus, with a stout, straight, smooth stem, leafy up to the straggling, large flower cluster of insignificant flowers which are never fully expanded. The green flower-heads tipped with inconspicuous dull purplish or whitish rays. The deeply lobed leaves are large and irregularly wavy-toothed. From 3-15 feet high growing in damp shady places. July - October.



Swamp Milkweed Asclepios incarnata
Milkweed Family (Asclepidodaceae)

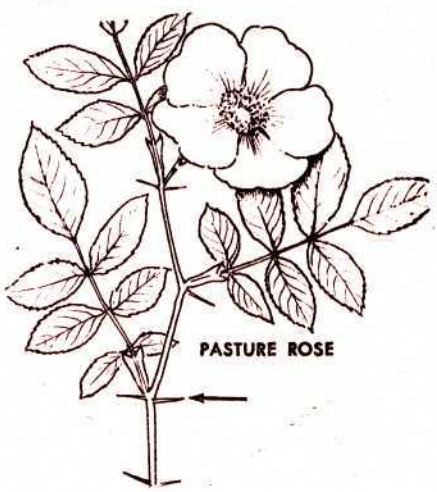
A similar, rather smooth species, the stem with two downy lines above and one the branches of the flower stalks. The leaves narrow, or lance-shaped; all short stalked. The small flowers in small terminal flat-topped clusters, dull crimson or dull crimson-pink. Swamp Milkweed perfers wet habitats such as shores of ponds and swampy fields. Grows from 2 - 4 feet. June to August.

High Mallow Malva sylvestri
Mallow Family (Malvoceae)

A quite common biennial having an erect branching stem, slightly fine hairy or smooth. The leaves are lighter green, rather long-stalked, toothed and angularly five or seven lobed. Flowers resemble the hollyhock, are light magenta or magenta pink. Note the strong dark red veins on the petals. Grows 1 - 3 feet. A delicate-flowered plant common on roadsides and in waste places everywhere. June - August

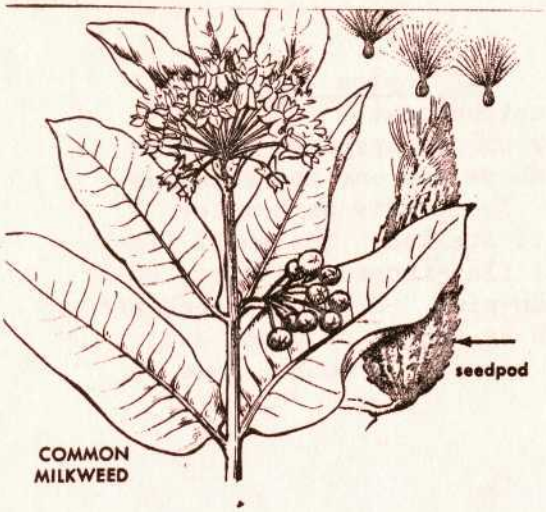
European Vervain Verbena officinalis
Vervain Family (Verbenaceae)

Alien species with flimsy spikes of lilac flowers. This annual weed has a four sided, slender, nearly smooth, branching stem. The leaves are minutely hairy deeply cleft with sharp teeth. The upper leaves are lance-shaped and without teeth, the lower are ovate and sharply divided, all are dark green. The flowers are on spikes about 5 inches long and are quite inconspicuous and uninteresting. The plant grows from 1 - 3 feet tall in waste places everywhere. June - October.



Pasture or Carolina Rose Rosa carolina
Rose Family (Rosaceae)

This is a more slender and low-growing species two or three feet in height; the stems have prickles near the base but are usually unarmed in the upper portion. The compound leaves have five to seven elliptic leaflets. The flowers, usually solitary, are characterized by having separate styles attached to each segment of the ovary. The Carolina Rose prefers dry open woods and rocky slopes. The fruit is a spherical red hip. June - July



COMMON MILKWEED

Common Milkweed Asclepias syriaca
Milkweed Family (Asclepiadaceae)

The Common Milkweed is a coarse-stemmed, rank-growing plant which often reaches a height of five to six feet; it is a common weed of dry fields and thickets, as well as roadsides. The oval or lancelate leaves reach a length of seven or eight inches, and grow in pairs along the stout stems. The somewhat pendulous flower clusters varies in color from brownish-lilac to pale lavender-brown, and from dull crimson-pink and pink-lilac to yellowish and brownish-lavender. The rough surfaced seed pod is filled with the silkiest of white down, attached to flat yellow-brown seeds overlapping each other like the scales of a fish. Indians of the Platte River country ate the young pods, cooking them with buffalo meat. This plant also has tuberous roots which were also cooked and eaten by the Indians. June - August.


GERMANDER

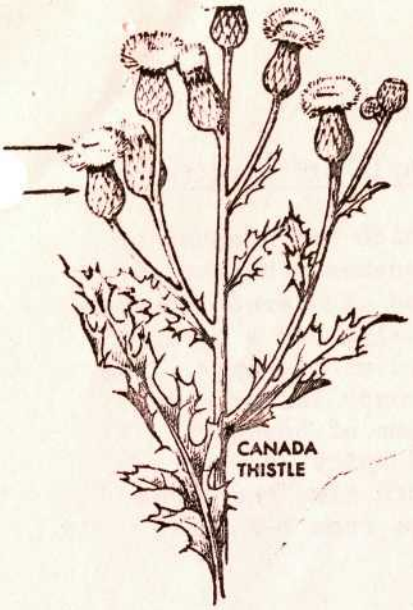
Germander, Wood-Sage Teucrium canadense
Mint Family (Labiatae)

Perennial with stiff perpendicular stem. The leaves are light green unevenly toothed, lance-shaped and finely hairy, especially underneath. The plant has a long flower spike with the flowers more or less arranged in circles. The flowers are about 3/4 inch long occuring as purple, deeper or paler, and magenta, or pinkish-white. The lower lobe of the flower is rather large and makes a convenient landing place for bees. Note the flower construction with its stamens extending through the partition of the upper lip. It grows 1 - 2 feet in moist thicket borders or marshes. July - September.


GREAT BURDOCK

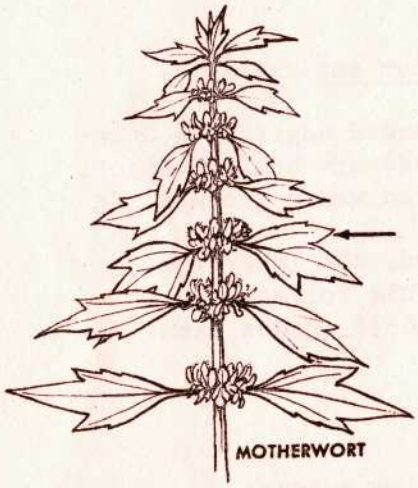
Great Burdock Arctium lappa
Composite Family (Compositae)

A common weed of waste places, rank-odored, deeprooted and hard to eradicate. Has large dull green, veiny leaves. The lower leaves are more heart-shaped, the upper ovate and both are wooly beneath. The stem is generally much branched and grows 4 - 8 feet high. The flower-head is a hooked-bristled green bur with magenta or often white flowers. Found along roadsides, chiefly limey soil. July - October.



Canada Thistle — Cirsium arvense
Composite or Daisy Family (Compositae)

Another European immigrant a pernicious weed in fields and waste places. Its heads are only an inch wide but are produced in large numbers on the abundantly branched stems. The plant spreads rapidly by means of horizontal rootstocks, as well as by seeds, and therefore usually occurs in tremendous colonies which effectively crowd out all other vegetation. Heads are small, lilac, pale magenta or rarely white about 7/8 inch broad. The dull gray-green, whitish-ribbed leaves are deeply slashed into many very prickly, ruffled lobes. Flowers are staminate and pistillate; also fragrant. Grows 1-3 feet in pastures, fields and roadsides. July - September.

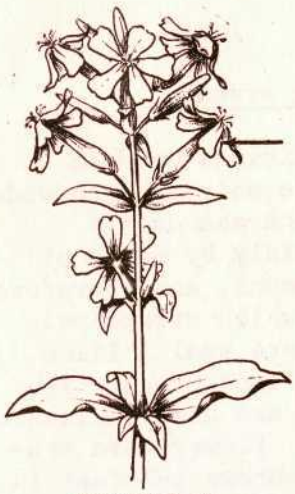


Motherwort — Leonurus candiaca
Mint Family (Labiatae)

Perpendicular-growing decorative herbs without any particular odor, deeply cut leaves, tiny flowers encircling the plant stem at the junction with the leaves. The upper lip of the tiny flower is bearded. The calyx has five thorn-like points. The leaves are wedge-shaped toward the stem, and three-pointed at the tip. The lower leaves are rounded, slashed, and long-stalked. Grows 2-4 feet along roadsides and waste ground. June - August.

Joe-Pye-Weed — Eupatoium purpureum
Composite or Daisy Family (Compositae)

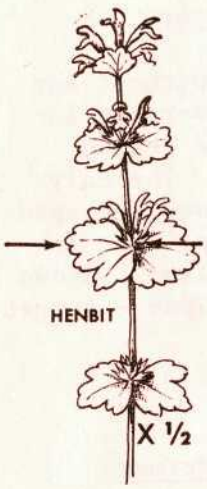
This beautiful native floral gem grows 2-6 feet tall in moist soil. Its stems have solid white pith on the inside and are purple-streaked or spotted on the outside, producing whorls of 3-6 thick-textured leaves at each joint. The massive pyramid-pink, purple, or magenta (varying even to crimson in the south) and often a foot or two in length or breadth. It is said the name came from an Indian named Joe Pye who used the plant for decoration to "cure" typhus and other fevers. It has roughish pointed ovate, toothed, light green leaves. Common everywhere on borders of swamps or low damp ground. July - September.



BOUNCING BET

Bouncing Bet — Saponaria officinalis
Pink Family (Caryophyllaceae)

This is another European species which has adapted to roadsides and waste places. Its stem reaches a height of three feet, bear opposite oval leaves and clustered flowers. Each flower consists of a five toothed calyx and a corolla of five separate colored petals, notched at the apex. The mucilaginous sap of this plant forms a soapy lather with water. Because of this it also has a name of Soapwort. The flowers, which have an old-fashioned spicy odor, are magenta-pink and white. Leaves are smooth also the stems which are thick-jointed. The plant grows from 1-2 feet. July - September.



HENBIT

X ½

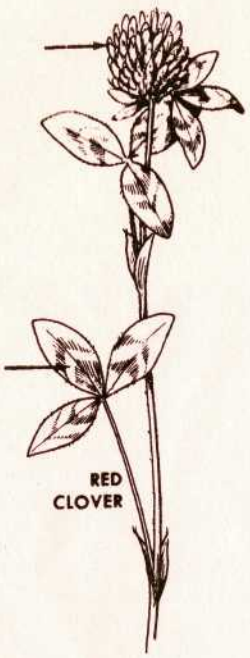
Henbit, Dead Nettle — Lamium amplexicaule
Mint Family (Labiatae)

Note the scalloped leaves with rounded edges; the lower leaves long stalked but the upper leaves are half clasping. This is a low spreading annual, found on waste grounds. It has tubular, bell-shaped flowers
the upper lip of the flowers is bearded, the lower one spotted; all magenta or pale purple. This foliage is not stinging to the touch. It grows from 6-18 inches high. March - November.

BULL THISTLE

Bull Thistle — Cirsium vulgare
Composite Family (Compositae)

It is a Eurasian plant now naturalized almost throughout the United States. The flowering stems, rising from basal leaf rosettes, grow to a height of six feet and are armed with prickly-lobed wings which extend down the stem from beneath the flower-heads. Its a biennial species with narrow, white-spiny, dark green leaves which hug the stem for an inch or two. The green flower-envelope is armed with spreading spines; the perfect, tubular florets, densely clustered, vary from crimson-magenta to light magenta with white pollen. Flowers remarkably sweet-scented, rich in honey and fertilized mostly by bumblebees. June - September.



Red Clover — Trifolium pratense

Pea Family (Leguminosae)

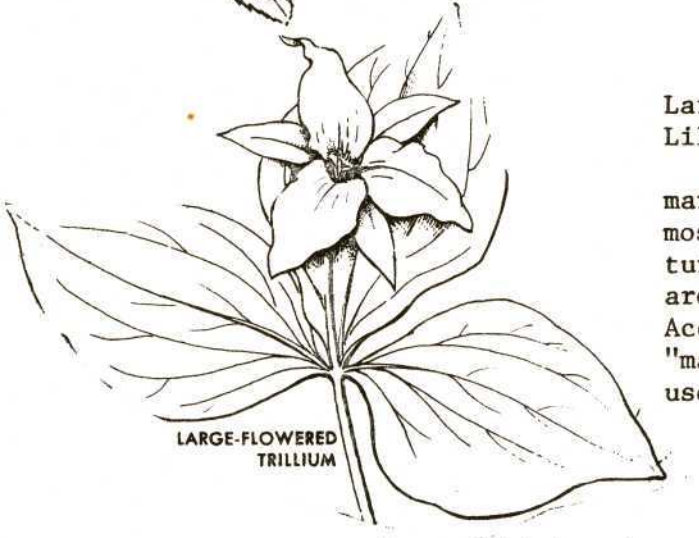
The true clovers, or trifoils, are familiar to even the most inexperienced naturalist because of the generally three-parted leaves with oval or elliptical leaflets. The minute pealike flowers are clustered in a compact head. The familiar Red Clover is a European species which has established itself along roadsides and in fields. It grows either as a biennial or a short-lived perennial. The three rather soft, dull bluish green leaflets are conspicuously marked by a whitish or yellow-green triangle. There are two hairy white and green stipules or leafy wings at the base of the leaf-stalk. Stem and leaves are soft-hairy. Eight to twenty-four inches high. Flower head ranges through crimson or magenta to paler tints of the same colors, and even white. May - September.

Wild Strawberry — Fragaria virginiana
Rose Family (Rosaceae)

This familiar wild flower and fruit is an inhabitant of dry sunny fields and hillsides from Newfoundland southward and westward to Oklahoma. The plants are stemless, producing horizontal runners from which rise tufts of compound leaves, each leaf with three leaflets. Flowers few, clustered at the tip of a long stalk, about 3/4 inch across. From 4-12 inches tall, the fruit becomes scarlet in color and embedded in it are the small achenes (actual fruit) which looks like seeds. April - June.

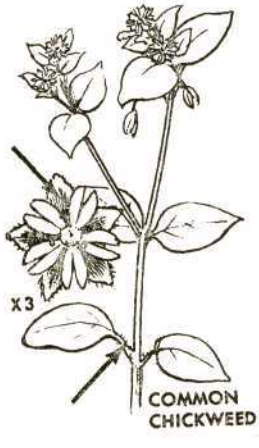
White Sweet Clover, Melilot — Melilotus alba
Pea Family (Leguminosae)

The Sweet Clovers have individual flowers much like those of the common clover, but they occur in slender, elongated clusters. All of the species found in the United States are European plants which have escaped and established themselves along roadsides and near dwellings. White Sweet Clover has compound leaves, each with three leaflets; the erect branching stems form tall plants topped with fragrant flowers. Grows 2-8 feet. May to October.



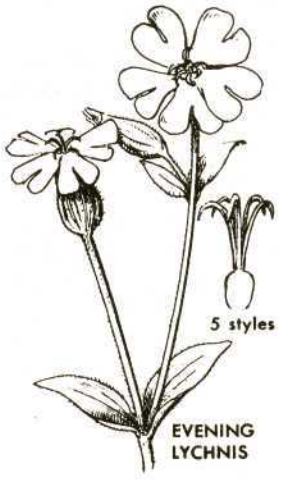
Large-Flowered or White Trillium
Lily Family (Liliaceae) — Trillium grandiflorum

Three broad leaves and three showy petals mark the trilliums. This is our largest and most variable species; white flowers (2-4 ") turn pink with age. All parts of the plant are in threes. It grows in rich leafy shade. According to Kiphart, this and other Trilluims "make good greens when cooked." Should be used as an emergency food. April - June.



Common Chickweed — Stellaria media
Pink Family (Caryophyllaceae)

Common annual weed. Has hairless leaves and a line of hairs down one side of the rounded stem. Note the long petioles (stalk) on the short, ovate leaves. The petals are two parted, shorter than sepals, appear like ten petals. Highly variable weed of waste places, cultivated areas, meadows, and woodlands. Introduced from Old World. The common chickweed when properly prepared makes a splendid potherb. Most of the year.

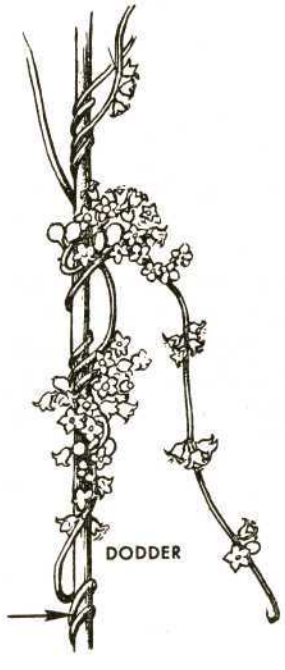


Evening Lychnis or White Compion Lychnis alba
Pink Family (Caryophyllaceae)

A charming plant naturalized from the old country. It has densely fine-hairy, ovate-lance-shaped leaves and stem both are dark green. The sweet scented flowers are white. Note the large flower with five curved styles that protrude in the center. It opens its blossoms toward evening and closes them during the following morning. They are often visited by night flying insects like moths and millers. Most night-blooming flowers are white or light yellow because these are the colors which stand out most prominently in the dark. The white petals are deeply cleft and crowned at the base with miniature petal-like divisions. The calyx is inflated, and often stained maroon-crimson along the ribs, which are sticky-hairy. Grows 1-2 feet. June - September.

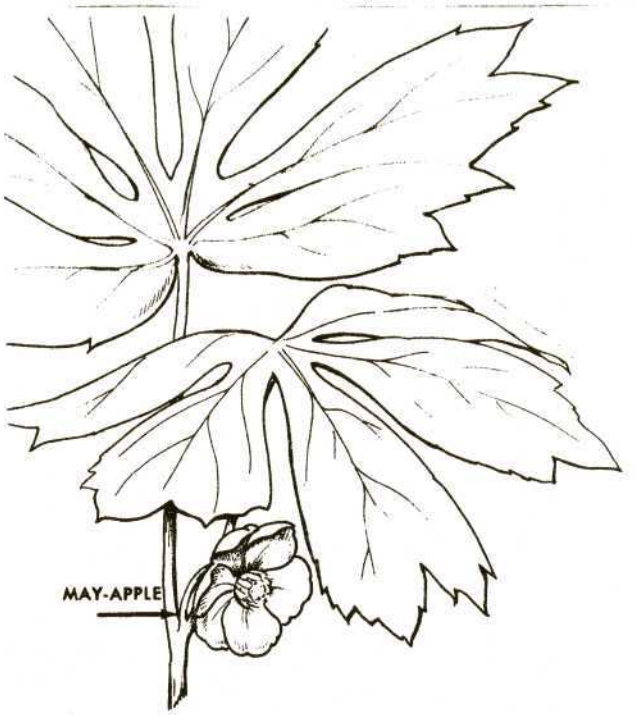
Yarrow Achillea millefolium
Composite Family (Compositae)

Before it blooms, this wild flower, also known as Milfoil, sometimes is mistaken for a fern because of its much divided leaves. Yarrow is a European perennial which has become as familiar as any of our native plants. The stems and branches grow stiffly erect to a height of several feet, the heads grouped in terminal, flat-topped clusters. Each head consist of tubular disk-flowers surrounded by four to six small ray-flowers. Often local colonies can be found with pink or rosy-purple ray-flowers. Grows 1-3 feet. June - August.



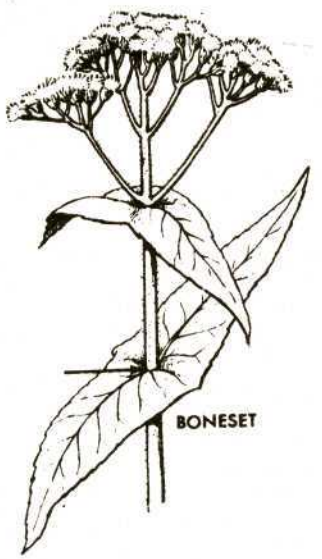
Dodder Cuscuta gronovii
Morning-Glory Family (Convolvulaceae)

A miserable parasite often troublesome in gardens, but found in low, damp, shady situations. The yellow or orange stems twine like long tangles strings over and around their host plants. It is crowded with bunches of tiny dull white bell-shaped flowers having fine lobes. All Dodders start at the ground until they find a suitable plant upon which to climb, the root dies and the plant becomes entirely parasitic. Found in low ground areas and thickets. July - October.



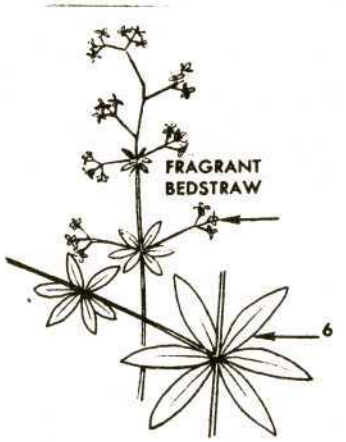
May-Apple, Mandrake, Wild Lemon
Podophyllum peltatum
Barberry Family (Berberidaceae)

Flowering stems with large shiny green leaves which grow up from horizontal underground poisonous rootstocks. Note the single, nodding, waxy, 6-9 petaled flower attached in the crotch below the two large, deeply divided, umbrella-like leaves. The basal leaves are rolled up and spear-like they push up through soil in early spring in the rich moist areas of woods. The single leaf is nearly a foot in diameter, shield-shaped with five to nine lobes. The fruit is a lemon like berry and best eaten when the plants are dying and falling to the ground. They should also be eaten with moderation unless acquiring a severe colic does not bother you. April - June.



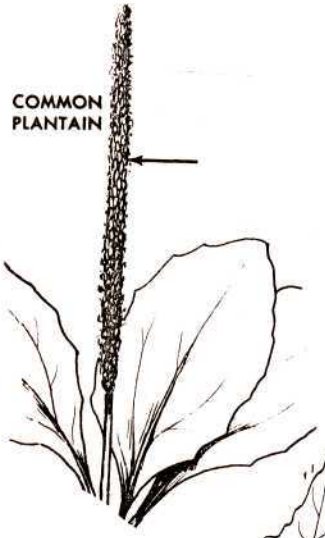
Boneset — Eupatorium perfoliatum
Composite or Daisy Family (Compositae)

In old literature you read much about the bonesets. An old-fashioned illness, break-bone fever, which could be grippe once has its terrors for a patient increased, for certainly he would have to take nauseous doses of boneset tea. This was administered by old women outside of the "regular practice". Also in the tropical areas the plant is known as agueweed because it was used for ague or malarial fevers. Its hairy stem grows 2-5 feet and bears pairs of opposite leaves, the lower one united and makes the stem appear as if it grew through the leaf. This has given rise to names like thoroughwart, thoroughwax, thoroughgrow and thoroughstem. The many white heads form a flat-topped inflorescence like the wild carrot or common elder. Found in low ground, thickets, swamps and appears almost everywhere in wet ground. July - October.



Fragrant Bedstraw — Galuim triflorum
Bedstraw Family (Rubiaceae)

Flowers usually born in clusters of three. The leaves broad lance-shaped, bright shining, green, bristle-pointed, slightly rough-edged, and set usually in sixes. After drying the folage it has a fragrant odor to it. Flowers greenish white. Found in wooded area and is quite wide spread in our area. June - August.

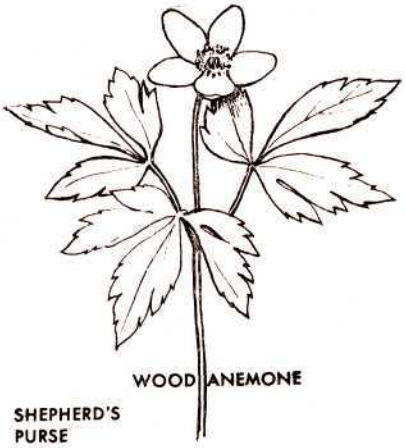


Common Plantain — Plantaga major
Plantain Family (Plantaginaceae)

The familiar weed of unkempt dooryard and grassplots, with ovate, dark green, slighly hairy or smooth leaves, the long stems trough-shaped, the ribs conspicuous, and the edge generally toothless, or rarely coarse toothed. Note the broad basal leaves and long tight flower head. Formerly eaten as a potherb in China. Used as a spring green. Grows 6-18 inches including its flowering stalk. Common everywhere, also in Eurasia. June to October.

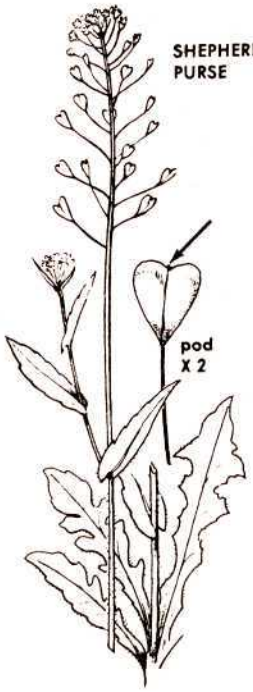
Common Nightshade — Solanum nigrum
Tomato Family (Solanaceae)

A Eurasian species with an erect, smooth, branching stem, and ovate, waxy-toothed, thin-stalked leaves slightly unequal-sided. Small flower clusters appear on stout stalks near the tips of the branches. Flowers are white, the coralla deeply fine-lobed; the calyx adhering to the globase berry, which is black when fully ripe. Stamens form a protruding yellow beak around the pistil. Black berry (sometimes yellow); reputedly edible, but certainly poisonous in some varieties. Grows 1-2¼ feet high. In waste places, or near dwellings in cultivated ground nearly everywhere. May - September.



Wood Anemone — Anemone quinquefolia
Buttercup Family (Ranunculaceae)

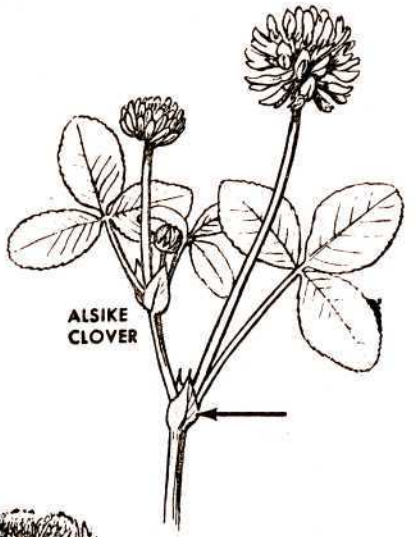
The low delicate woodland plant, usually with five (4-9) petals-like sepals. Ten deeply cut leaves appear to be divided into 3 or, more frequently, 5 leaflets. This perennial plant grows from 3-6 inches high with flowers with white to pink or purplish tinge. The fruit is an achene. The plant also dies each year but its rhysome or underground stem survives the winter. The leaves appear early in spring are situated in a whorl at the stem's apex with the long pediceled flower coming from the center of the whorl. April - June.



Shepherd's Purse — Capsella bursa-pastoris
Mustard Family (Cruciferae)

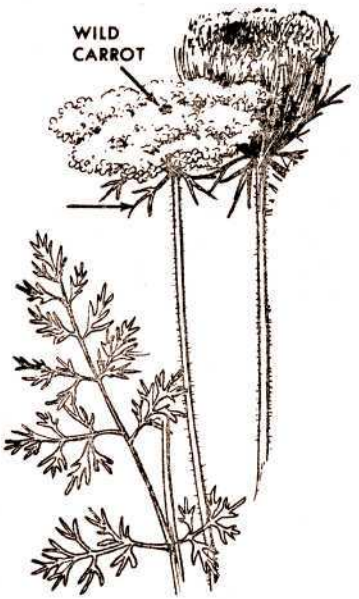
Easily recognized by the triangular or heart-shaped seed pods. Flowers tiny. Basal leaves dandelionlike, in a rosetta; stem leaves small, clasping and grow directly from the stem. Plant grows to a height of 8-20 inches. Note: C. rubella is similar, but see shape of pod (insert). It is found as a weed in fields and waste places nearly all over the world. It has the peppery flower of other members of the mustard family and was formerly used as a potherb. Horace Hephart says : "A good substitute for spinach. Delicious when blanched and served as a salad. Taste somewhat like cabbage, but is more delicate.

April - September.



Alsike Clover Trifoluim hybridum
Pea Family (Leguminosae)

A species somewhat similar to our white clover, but with a branching, stout, and rather juicy stem. The leaflets are generally obovate but not reverse heart-shaped; i.e. with the lobed tip. The edges are finely toothed, and the surface is not marked with the triangle; a pair of flaring stipules or leafy wings are at the base of the leaf stalk. Flower-heads similar to those of white clover but varying from pinkish-cream to crimson-pink; the withered florets brownish and turning downward, extremely sweet scented, and rich in honey. 1-2 feet high. On roadsides and in waste places everywhere. May - October.



Wild Carrot, Queen Anne's Lace or Birds' Nest
Parsley Family (Umbelliferae) Daucus carota

One of our commonest weeds, naturalized from Europe, and familiar by every wayside near a dwelling. A coarse and hairy-stemmed biennial with exceedingly fine cut leaves, yellowish-green and rough to the touch; they are thoroughly decorative. The dull white flowers, in extremely flat-topped clusters, are gracefully disposed in a radiating pattern as fine as lace; in the center of the cluster is frequently found a single tiny deep purple floret. Old flower clusters curl to form a cuplike "birds' nest" accounting for another popular name. Two to three feet high. In waste places and fields everywhere; it is often a most troublesome weed. From it was derived the garden carrot. May - October.

Daisy Fleabone Erigeron annuus
Composite Family (Compositae)

An annual and asterlike species with a spreading haired stem and coarsely toothed, lance-shaped leaves, the lower ones broader. The white or pale lilac flower-heads are about ½ inch broad, with a green-yellow disc. This asterlike flower, unlike the asters, starts blooming in spring. The ray flowers quite numerous or many as 40-70 on each head. May - October.

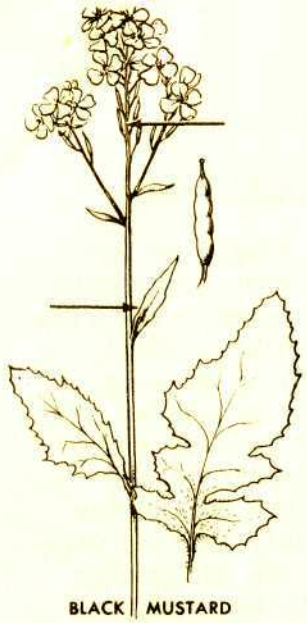
SPOTTED TOUCH-ME-NOT

Spotted Touch-Me-Not, Jewelweed Impatiens biflora
Touch-Me-Not Family (Balsaminaceae)

Usually rudyy stemmed; very variable in color, with smaller flowers, sometimes deeply freckled with red-brown over a deep gold-colored ground, and at other times pale buff-yellow, sparcely spotted. Flowers up to an inch in length hang by slender pendent stalks. The flower develops its stamens first, and afterward its pistil, so crossfertilization is almost an assured thing. Ripe seedpods pop at touch, elastically explosive, and projects its seeds for a considerable distance - hence touch-me-not. The succulent stems are said to be edible, if taken when the plants are young. Thrives in roadside ditches and low moist places. Grows to a height of 2-5 feet. July - September.

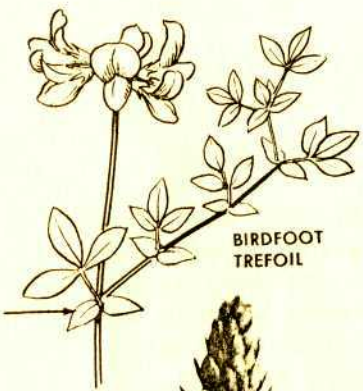
Tiger Lilly Lilium tigrinum
Lily Family (Liliaceae)

The Tiger Lily comes from the Far East, it is a native of China and Japan. It is probably one of the hardiest and easiest to grow of all the introduced lilies. Its easily recognized by its 5-25 orange-red, nodding flowers. Each flower is from 3-4½ inches long with recurved purple spotted segments. Note the leaves alternate with dark bulblets in the axils of the leaves. These bulblets sometimes emit roots which make it an excellent help in adaptation and acclemation of the plant. July - August.



Black Mustard — Brassica nigra
Mustard Family (Cruciferae)

Another common weed in grain fields, and beside the road. A more widely branched plant than Field Mustard, and with far more deeply lobed leaves; one terminal large division, and generally four lateral one all finely toothed. The small pure light yellow flowers less than ½ inch across are frequently visited by small bees. The pistil, much exceeding the stamens in length adapts this plant for across pollination. The seed pod is four sided and about ½ inch long and lies close to the stem; the seeds are black-brown. The plant grows to about 2-5 feet in height. Note that the lower leaves are coarse and hairy while upper leaves are hairless and lamedate. June-October.

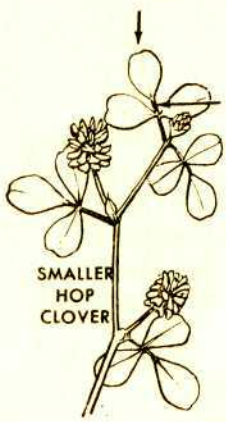


Birdfoot Trefoil — Lotus corniculatus
Pea Family (Leguminosae)

Note the fine-part leaves (three cloverlike leaflets and two more at the base, appearing like large stipules). Flowers in cluster are in clusters of 3 to 6, yellow to red. Slender pods suggests bird's foot. They grow from 6 to 24 inches erect to prostrate. Found in waste places and roadsides. June - September.

Common Mullein — Verbascum thapsus
Snapdragon Family (Scrophulariaceae)

A very common, picturesque, velvety-leaved weed of rocky pastures and roadsides, naturalized from Europe. The basal leaves at first in the form of a rosette, large, ovate, thick velvety, and white-green. The stem stout and erect, with a few smaller, acute-pointed leaves; the terminal flower spike cylindrical, woolly, and dotted with scattered light yellow flowers. Note the club-like flower head and the large flannel-textured leaves that flow into the stem. Grows 2 to 6 feet high along roadsides, poor fields, and waste places. June - September.

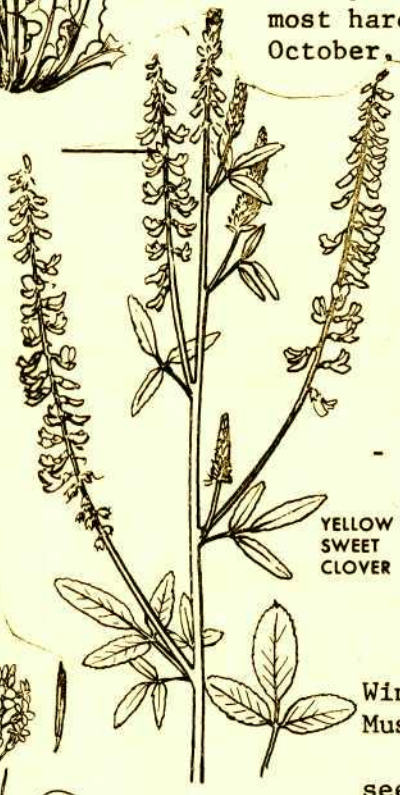


Low Hop Clover — Trifoluim procumbens
Pea Family (Leguminosae)

Flower heads smaller (less than ½ inch). Plants are lower, more spreading and leaves fine-hairy. The leaflets are shorter and blunt-tipped, the middle one slightly stemmed and the lateral ones stemless. The stipules (leafy formations at the base of the leaf stalks) are broader and pointed ovate. Occasional or common everywhere. May - Sept.

Common Dandelion — Taxaxacum officinale
Composite or Diasy Family (Compositae)

The showy yellow flower heads are carried singly on unbranched, leafless hollow stems. The long tap root along with the other plant parts contain a milky sap. The name means lion tooth (Sharp points of leaf resemble a lion's tooth), these leaves are very bitter and are usually not eaten by grazing animals. The leaves of the dandelion are highly prized as a spring green. They are gathered when young and tender, thoroughly cleaned, then boiled. The cooking should not be too long, and those who do not relish the bitter taste had better change the water once or twice. They are generally served with a lump of butter and a dash of vinegar. It is one of natures most hardy plants and grows where others show defeat. May - October.



Yellow-Sweet Clover — Melilotus officinals
Pea Family (Leguminosae)

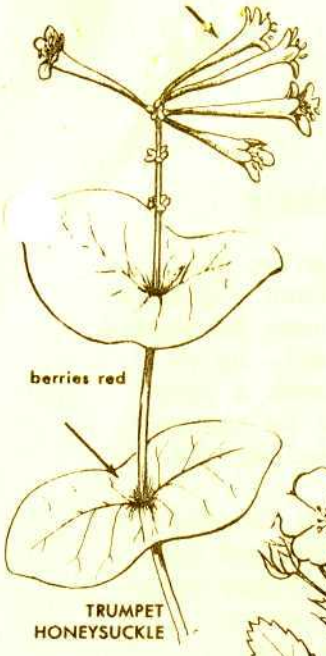
The related sweetclovers, Melilotus, are tall weedy plants with wiry stems and narrow racemes of tiny white or yellow flowers. They are very valuable as forage plants and to beekeepers because of the great abundance of nector which they secrete. The plant is annual, 3 to 6 feet high, branchy, with clover-like leaves, yielding when crushed an intense fragrance suggesting vanilla or new-mown hay. June - August.

Winter Cress — Barbarea vulgaris
Mustard Family (Cruciferae)

Suggests Brassica mustards but with shorter beak on seedpod. Note the rounded "ears" on the lower leaves and the broad, toothed, clasping, uppermost leaves. The typical variety shown here has erect seedpods hugging the stem; other varieties have spreading seedpods. It is quite variable, grows 1 to 2 feet in wet meadows, fields and brooksides. April - August.

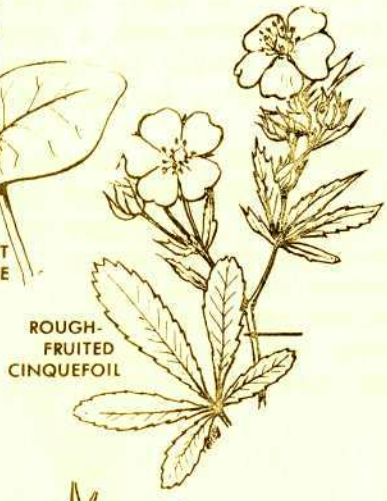
Moneywort, Creeping Charlie, Creeping Jenny
Lysimachia nummularia
Primrose Family (Primulaceae)

This is an extremely showy plant whose slender stems creep over the soil and periodically at the joints sends down roots. They will produce an abundance of wheel-shaped flowers in pairs at the leaf axils (unless covered by water). The flowers are golden yellow, dark-dotted about ½ - 1 inch wide. The leaves are dark green, shining, small almost round, and short stemmed. July - September.



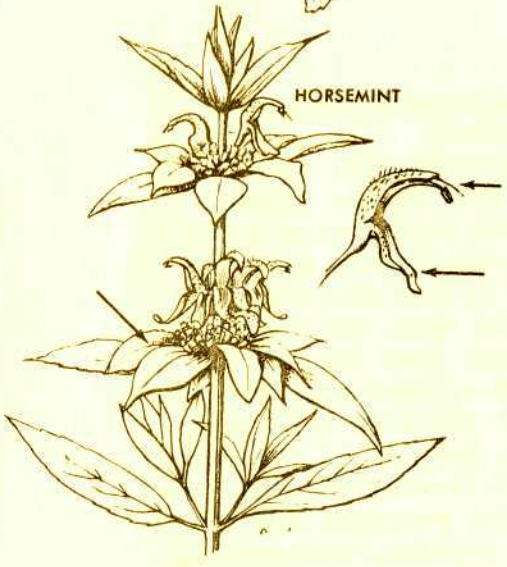
Trumpet Honeysuckle — Lonicera sempervirens
Honeysuckle Family (Caprifoliaceae)

It is a high-climbing vine with oval leaves whose bases are usually united around the stem. It is a scentless but beautiful species and sometimes cultivated. The leaves are white beneath. The stem ends in a small cluster of large, tubular, deep Naples-yellow flowers, often deeply tinged red outside. The berry is scarlet eaten in the summer. The most useful visitor is the hummingbird, though many bees and butterflies assist in the transfer of pollen. It grows from 8 to 15 feet and found throughout wooded areas. April - September.



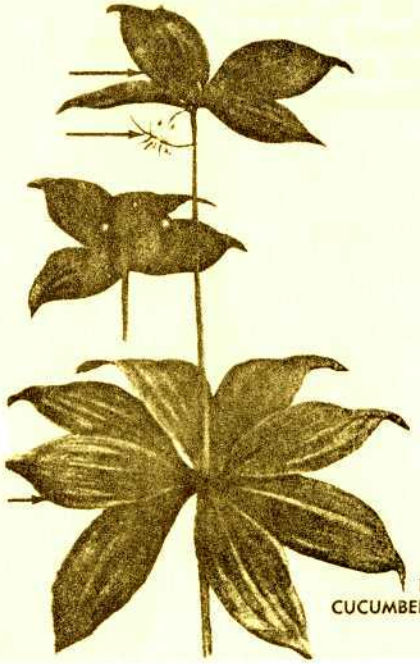
Rough-Fruited Cinquefoil — Patentillea recta
Rose Family (Rosaceae)

The largest group of herbaceous members of the rose family is that of the cinquefoils. Handsomest in our area is the rough-fruited or sulphur cinquefoil, an erect, stout branched immigrant from Europe. It grows from 1-2 feet and is very densely soft-hairy throughout. Its leaves are palmate (arranged like a hand) with 5-6 leaflets. The terminal flowers are borne on terminal cymes. The flowers are pure yellow and 3/4 inch broad. June - August.



Horsemint — Monarda punctata
Mint Family (Labiatae)

Note the rosettes of wide-pointed, yellowish, purple-spotted flowers in the upper leaf axils, and showy white or lilac bracts at their base. These flowers are not very showy but these bracts seem to set them off. Found in sandy fields, pastures, woods, and roadsides. It blooms continuously from July to October.



Indian Cucumber — Medeola virginiana
Lily Family (Liliaceae)

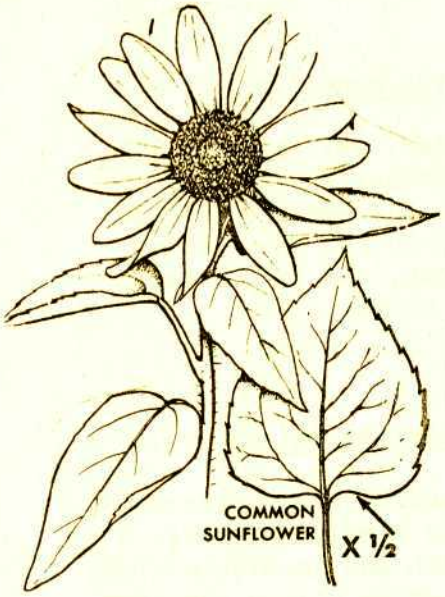
Note the two whorls of leaves and dangling greenish-yellow flowers with relfexed tips and reddish stamens. A tall erect plant, one or two feet high and in distinction because of the two whorls of leaves which cloths the stem. The lower whorl consists of five to nine oval leaves. Young plants, when only the whorl is present resembles an umbrella. When it first appears in the spring it is covered by a loose wool which soon drops and disappears. It has a white, thick tuberous rootstock, two or three inches long, half an inch or more thick. It is brittle and much resembles the cucumber in taste and smell. The Indians are said to have relished it. It is the only known member of its genus in the world, and is named in commemoration of Media, mythological Greek sorceress, in allusion to its reputed healing properties. May - June

Wild Lettuce — Lactuca canadensis
Composite Family (Compositae)

The wild lettuce prefers a rich rather moist soil in open places, in hayfields, along fences, open thickets, etc. Horses are very fond of it, hence the name Horseweed.

When the wild lettuce is a few inches tall, up to fifteen inches, the leaves and tender stems make a very good potherb. When boiling, the water should be changed to remove the milk and slight bitter taste, unless the latter is desired.

It is a smooth plant that grows from four to nine feet tall. The hollow stem has a whitish bloom and is very leafy up to the panicle. The basal leaves are variable, deeply cut, often to the midrib, from five to twelve inches long. The stem leaves are clasping, whitish beneath the upper ones often lance-shaped and entire. The flower heads are about half an inch high, yellow and numerous, but not many open at one time. July - September.



Common Sunflower — Helianthus annuus
Composite or Daisy Family (Compositae)

When the explorer, Samuel de Champlain, over 300 years ago observed the Indians living on the eastern shores of Lake Huron, he found them cultivating a tall, coarse-stemmed plant with huge, rough leaves and tremendously large terminal heads of yellow flowers. A textile fiber was obtained from the stem, yellow dye from the flowers, and from the seeds food and oil for the hair. The plant that the Indians used was the common sunflower. Sunflowers have always been celebrated in romantic song, poetry and prose because of the fact the stems turn from east to west following the sun. The disk is brown specimens. Commercial purposes use the seeds which yield an oil used for cooking, soap-making, and as a cake for cattle feed. it is an annual with generally three-ribbed and heart-shaped leaves, flowers from 1 - 10 inches wide. Grows from 2 - 12 feet and appears in prairies, bottoms, and roadsides. July - October.

Wild Parsnip Pastinaca sativa
Parsley Family (Umbelliferae)

A common plant familiar on waysides and the borders of fields, with a tough, strongly grooved, smooth stem, and with dull deep green, compound leaves. The leaves are composed of many toothed, thin ovate divisions. The dull light gold-yellow flowers are gathered in small clusters set on slender stems, and form a broad, flat-topped cluster. The stem is 2-5 feet high, is extremely strong and difficult if not impossible to break. The seeds are flat and thin. The plant was naturalized from Europe, and the ancestor of the garden parsnip. May - October.

Ten-rayed or Thin-leafed Sunflower
Helianthus decapetalus
Composite or Daisy Family (Compositae)

Note the way the larger leaves narrow into long, winged petioles. A rather showy species having 10 - 12 rays, heads 2-3 inches broad. Stem is rough about and smooth below. It grows 3-5 feet and is sparingly branched. The lower and middle leaves are opposite, the upper ones alternate. All leaves are 3-6 inches long, triple-nerved, pointed, ovate, and coarsely toothed. Found in moist woods, banks, thickets, and open clearings. August - October.

Black-Eyed Susan Rudbeckia hirta
Composite or Daisy Family (Compositae)

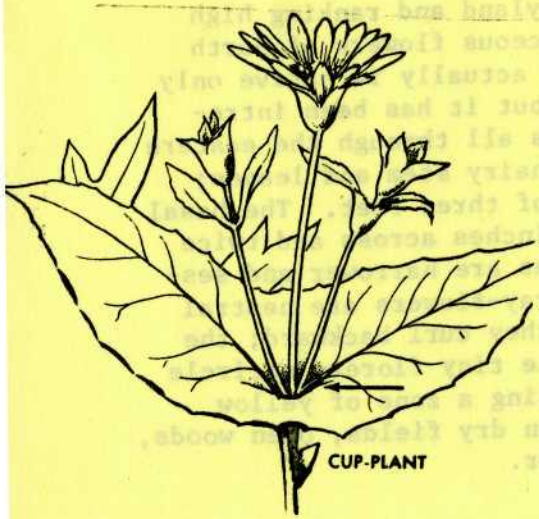
Most popular of all the coneflowers, it is the official state flower of Maryland and ranking high as one of the showiest herbaceous flowers of North America . This lovely plant actually is native only on the midwestern prairies, but it has been introduced into fields and meadows all through the eastern states. It has a rough and hairy stem and leaves; the plants grow to a height of three feet. The basal leaves are broadly ovate, 3 inches across and twice as long; the upper stem-leaves are narrower and sessite. The deep gold-yellow ray-flowers are neutral without stamens or pistils; they curl backward; the disc is madden purple, and the tiny florets encircle it in successive bloom, creating a zone of yellow when pollen is ripe. Found in dry fields, open woods, and roadsides. June - October.

Agrimonies
Rose Family (Rosaceae)

Its a most common weed with a glandular-hairy simple stem, and compound leaves with a hairy stalk; spicy odored when crushed. There are usually seven bright green, many ribbed ovate leaflets which are coarsely toothed; the interposed tiny leaflets are ovate and toothed. The slender spikes of five-petaled yellow flowers with orange anthers are not showy. The seeds are sticky and adhere to one's clothing. In our area there are somewhere around seven similar species which are accurately identified only by technical characters. They usually grow two to four feet high. July to September.

Evening-Primrose Family Onagraceae

With 40 genera and about 500 species of wide distribution but chiefly of the New World, the evening primrose family contains many spectacularly beautiful plants. The genus Oenothera numbers at least 15 in our area. Indentification is complex, partly because of hybridization. They divide roughly into (1) evening-primroses, which open toward evening and wilt next day, and (2) sundrops, which open in sunshine. The four-branched stigma forms a cross. The mostly erect, stout, and rather coarse stems bear a wealth of usually wavy-edged leaves and long terminal spikes of large, yellow flowers that open only in the evening and remain open all night or on dark cloudy days, seeking the services of longtongued nocturnal moths and millers. The many species are very similar and extremely variable, abundantly hybridizing and segregating into many races of slightly different genetic constitution, some of which have been given names. Most abundant is O. biennis the common evening primrose. Found in dry or sandy soil, and open places. June - September.



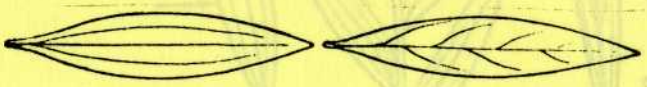
Cup-Plant Silphium perfoliatum

It's a coarse giant with thick square stems and leaves that are arranged in pairs, the upper ones clasping the stems so as to make cups, in which water readily collects. The numerous, yellow heads are two or three inches wide. A tall perennial, three to seven feet high, smooth stemed. July to September.

Goldenrods Solidago

Composite or Daisy Family (Compositae)

The genus Solidago, the goldenrods, includes about 60 species in our area, of which about 25 are commonly found throughout the northern United States. These are distinguished with considerable difficulty, mostly by differences in stem, leaf, and flower; the stem may be rough, smooth, covered with hairs or with bloom, or angular, or round; the leaf may be triple-ribbed, feather-veined, or more or less distinctly ribbed or toothed; the flower heads may have few or many larger small rays. The Latin name, Solidago, means to make whole, alluding to some curative quality of the plant.



parallel-veined (or nerved) feather-veined

There has been much agitation from time to time, for the selection of a national flower to represent the United Sates. The goldenrod has always been a leading contestant for this honor because there is hardly a part of our great land in which there are not one or more species of goldenrod, and it is a typical North American group.

Goldenrods have come in for much abuse from hayfever sufferers, but actually very little hayfever is caused by them. Their pollen, adapted for transport by insects, is heavy and sticky and is produced rather sparingly. It is not carried by the wind. Most hayfever ascribed to goldenrod pollen is really caused by the light, dry airborne pollen of the ragweeds and mugwort, which produce pollen in tremendous quantites for air transport and shed it when goldenrods are in flower.

Identification, often difficult, is simplified by : (1) assigning the plant to one of the categories below; (2) noting whether the leaves are feather-veined or parallel viened.

Since the goldenrods are variable the following will be a discription of the entire group with the succeeding pages containing line drawings of several goldenrods located in this area.

They are perennial, erect herbs, often simple or few branches; alternate leaves which are either toothed or entire, and numerous small heads of both tubular and ray flowers. Disk flowers usually all perfect, that is with both stamens and pistils, their corollas tubular and five lobed; ray flowers arranged in one series and pistillate.

plumelike, graceful | elm-branched | clublike, showy | wandlike, slender | flat-topped


TALL GOLDENROD
SWEET GOLDENROD
EARLY GOLDENROD
LATE GOLDENROD
CANADA GOLDENROD
SHARP-LEAVED GOLDENROD
ROUGH-STEMMED GOLDENROD
BOOTT'S GOLDENROD
BOG GOLDENROD
GRAY GOLDENROD


ROUGH-LEAVED GOLDENROD
LANCE-LEAVED GOLDENROD
STOUT GOLDENROD
ELM-LEAVED GOLDENROD
ERECT GOLDENROD
ZIGZAG GOLDENROD
SHOWY GOLDENROD
HARD-LEAVED GOLDENROD
OHIO GOLDENROD
HAIRY GOLDENROD
BLUE-STEMMED GOLDENROD

GLOSSARY OF TERMS

Accessory Buds - Additional buds above or at sides of axillary buds.(f, figs, 47, 50).
Achene - A dry, one-seed , indehiscent fruit, as in buttercup or sunflower.
Acuminate - Taper-pointed. (Fig 33)
Acute - Ending in a sharp angle. (Fig 32)
Adnate - Attached. Said of stipules when attached along the petiole.
Aggregate - Several united fruits developed from one flower, as in the blackberry.
Alternate - Arranged singly, - not opposite each other. (Figs. 9, 47).
Appressed - Lying against.
Aril - Fleshy pulp enclosing a seed; in our bright-colored, in capsules.
Ascending - Rising or curing upward and outward.
Awl-shaped - Tapering to a rigid point.
Awn-pointed - Bristle-tipped.
Axil - The inner angle formed by a rib and mid-rib in a leaf (fig 1, f) or by a leaf and stem, (fig 9,b)
Axillary or axile - Located in the axil.
Berry - A fleshy fruit with seeds imbedded in a pulp, as in the currant, grape, etc.
Blade - The expanded part of the leaf. (Fig 1,a)
Bloom - A whitish covering of wax particles, as in the leaf of carnation and fruit of grape.
Bract - A more or less scale-like modified leaf, usually below a flower. (a, figs,46, 48).
Boat-shaped - A leaf so folded along the midrib that the latter forms a keel.
Bundle-scars - The scars left by veins in a leaf-scar. (d, figs. 49,50)
Bur - A dry fruit densely beset with spines or hooks.
Calyx - The outer division of the flower covering. (Fig 45,a)
Capsule - A dry dehiscent fruit with more than one cell, or with more than one ridge or line bearing seeds.
Catkin - A scaly spike of inconspicuous flowers, as in birch.
Cell - Each cavity or compartment of an ovary or fruit.
Ciliate - With a fringe of hairs or bristles on the edge. (Fig 40)
Cleft - Cut about half way to base, or midrib, with a sharp sinus. (Figs. 7,8)
Close - When bark is almost smooth, not broken into distinct plates or ridges.
Compound - Blade divided into distinct leaflets, as in clover or rose. (Fig. 2,3,4)
Cone - A usually dry multiple fruit developed from a cluster of flowers, as in pine, hops, etc.
Connate - Said of leaves or bracts when two or more are united at the base into one blade around the fruit or stem. (Fig 12)
Cordate - Heart-shaped.
Crenate - Margin cut into rounded teeth directed towards tip of leaf. (Fig. 37)
Crenulate - Finely crenate (Fig. 38)
Cuneate - Wedge-shaped. (Fig 22)
Cup - The scaly receptacle containing an acorn, hazel-nut, etc.
Cuspidate - Ending in a tooth consisting of a bit of the blade and tip of vein or rib. (Fig 31)
Cut-toothed - Irregularly and rather sharply cut on margin. (Fig 41)
Cyme - A cluster of flowers in which the terminal flower opens first.
Deciduous - Falling off during first season.
Decompound - More than twice compound at least near base.
Dehiscent - Breaking regularly.
Deltoid - Triangular, with one side as base. (Fig 19)
Dentate - With teeth directed outward (Fig 39)
Denticulate - Finely dentate.
Diffuse - Spreading in fan-like manner.
Digitate - Said of compound leaves with palmately arranged leaflets. (Fig 4)
Disk - The broadly enlarged tip of a tendril; a pair of connate leaves near ends of branches of some shrubs.

Doubly - Used in cases where coarser teeth have margin cut. (Fig 35, for example, shows a doubly-serrate margin).
Downy - With soft hairs (not straight).
Drupe - A stone fruit, like a plum or cherry.
Drupelet - A small drupe.
Emarginate - With distinct notch at tip with a rounded sinus. (Fig 28).
Entire - Margin not cut. (Figs 1,16)
Equal - Both sides of the leaf the same at base. (Figs 1,5)
Erose - Margin irregularly cut, as if gnawed.
Even-pinnate - A pinnately-compound leaf ending in a pair of leaflets (Fig. 3)
Falcate - Curved like a scythe or saber. (Fig. 15)
Foliaceous - Leaf-like .
Follicle - A one-celled pod opening along one suture, rarely along two as in Physocarpus.
Genus (plural = genera) - A natural group of closely related plants, as roses (Rosa), the oaks (Quercus), etc.
Glabrous - Smooth, without hairs, scales, or spines.
Glandular - Bearing glands, which may be more or less stalked, or imbedded below the surface.
Glandular-serrate, etc. - The teeth tipped with gland-like structures.
Glaucous - Whitened with a waxy bloom.
Head - A compact, more or less rounded cluster of sessile, or nearly sessile flowers.
Hip - A fleshy fruit with hard nutlets which are not imbedded in pulp as in the roses.
Hybrid - A cross between two distinct species or forms.
Incised - Margin cut more or less sharply and irregularly. (Fig 41.)
Indehiscent - Not opening along definite line or sutures; not opening.
Inflated - Somewhat bladder-like.
Involucre - A whorl of bracts or leaves around a flower or flower cluster.
Keeled - With dorsal longitudinal ridge.
Lanceolate - Narrow, widen in lower part. (Fig 14)
Leaf-axis. - The petiole and midrib of a compound leaf. (b,c figs. 2,3)
Leaflet - One of the divisions of the blade of a compound leaf. (a,figs. 2,3).
Leaf-scar - The scar left on the stem when a leaf falls. (c,figs.2,3,4)
Legume - A one-celled pod, breaking more or less distinctly along two lines or sutures, as in the pea or bean.
Lenticels - The usually elevated dots on twigs; on older bark sometimes appearing as small corky ridges. (e,figs. 47,49)
Linear - Narrow, with nearly parallel sides. (Fig. 13)
Lobe - A more or less rounded division of a leaf, etc. (b, figs. 5.6)
Lobed - Cut about half way to the midrib or base, with the sinus rounded. (Figs.5,6)
Midrib - The large central vein of many leaves (Fig. 1,d)
Mucronate - Tipped with a point which is an extension of a midrib or vein.(Fig. 30)
Multiple - A fruit which is developed from an entire flower cluster.
Naked - Without spines, glands, etc.
Netted-vein - Veins uniting to form a net-work.
Nodes - The joints of stem where leaves are attached. (a,figs. 9,10,11)
Nutlet - A small hard-shelled 1-seeded fruit.
Obconical - Shape of an inverted cone.
Oblanceolate - Reversed lanceolate, wider towards tip. (fig. 23)
Oblique - Said of base of leaf when unequal. (Fig 26)
Oblong - With nearly parallel sides, and at least twice as long as broad. (Fig 17)
Obovate - Reversed ovate (Fig 24)
Obtuse - Blunt or rounded at end. (Fig. 29)
Odd-pinnate - A pinnately compound leaf ending in one leaflet. (Fig 2)
Once-compound - Compound leaf with leaf axis unbranched. (Fig 2)
Opposite - Each node with a pair of leaves opposite each other on stem. (Figs. 10,49)
Orbicular - Rounded. (Fig 21)
Oval - Similar to oblong, but less that twice as long as wide. (Fig 18)

Ovary - The lower part of the pistil, containing ovules (seeds). (Fig. 45,e)
Ovate - Nearly egg-shaped in outline. (Fig 16)
Ovoid - Egg-shaped.
Palmate - With the divison extending radially from base. (Palmately compound, fig. 4, palmately lobed, fig.5; etc.)
Panicle - Loosely compound flower-cluster, with lower flowers opening first.
Pappus - The hairs, etc., which crown the achene in the Composites.
Parted - Similar to lobed or cleft, but cut more than half way down.
Pectinate - Margin cut to resemble teeth of a comb.
Pedicel - The stalk of each flower in a cluster. (j, figs. 45,46,48)
Peduncle - The stalk of a solitary flower, or of a flower-cluster.
Peltate - Shield-shaped with stalk more or less at right angles to lower surface. (fig 21)
Petiole - The stalk of a leaf. (b, figs.1,2,3).
Petioled - Having a petiole.
Pinnate - With parts or divisions arranged along sides of a midrib or axis. (pinnately compound, fig. 2; pinnately lobed, fig. 6)
Pinnatifid - Deeply and sharply pinnately cut.
Pistil - The innermost part of the flower, producing seeds. (Fig 45,e,f,g,h).
Pitted - Marked with small depressions.
Pod - A dehiscent dry fruit.
Pome - A fleshy fruit containing a core with seeds, like the apple.
Puberulent, or puberulous - Minutely pubescent.
Pubescent - Covered with soft downy hairs.
Punctate - Marked with colored or translucent dots.
Raceme - An elongated unbranched flower-cluster, with pedicels nearly equal. (Fig 46)
Receptacle - The end of the flower-stalk, bearing the parts of the flower. (Fig. 45,i)
Repand - Wavy, like the edge of an umbrella. (Fig 44)
Resinous - With resinous dots or globules marking the surface, or surface sticky.
Reticulated - When ridges of bark, or other markings, form a network.
Retuse - Slightly indented at tip. (Fig. 27)
Revolute - The margin turned or rolled inward, towards midrib.
Ribs - The main veins of a leaf. (Fig 1,e,; Fig. 5,c)
Rough-veined - The veins stand out from the surface.
Scarious - Dry and papery.
Serrate - Margin cut with sharp teeth directed towards tip of leaf, etc. (Fig 34)
Serrulate - Finely serrate. (Fig 36)
Sessile - Without a stalk or pedicel .
Simple - Applied to a leaf with blade in one piece. (Figs 1,5,6)
Sinuate - Deeply wavy, the waves rounded. (Fig 43)
Sinus - The inner angle of a lobe or divison (a, figs. 5,6,7,8).
Smooth - Without hairs, spines, or other projections.
Spatulate - Broadened and rounded towards tip. (Fig 25)
Spike - An elongated close cluster of inconspicuous, usually sessile flowers.
Spines - Sharp projections attached merely to the epidermis (Prickles) Also applied to smaller simpler thorns.
Spinulose - Covered with minute spines.
Spiny - Covered with spines.
Stamens - The pollen-bearing structures in a flower, consisting of the anther (fig. 45,d) and (usually) the filament (fig. 45,c)
Staminate - Producing stamens only.
Stellate - Applied to hairs which branch in a radial or star-shaped manner.
Sterile - Applied to flowers which have no ovaries, and hence produce no seeds.
Stigma - The upper portion of the pistil receiving the pollen. (Fig 45,h)
Stipular - Relating to the stipules.
Stipules - The two appendages, one on either side of the base of the petiole, in some leaves. (Fig 1,c).
Stone - The hard portion of a fleshy fruit, enclosing the seed, as in the cherry.

Style - The stalk of the stigma. (Fig 45,g)
Sub - Used as a prefix means something or nearly.
Suture - The line along which fruits, etc, break.
Tailed - Applied to an achene when the style persists in the fruit as a flexible projection.
Tawny - Tan-colored.
Terete - Round in cross-section.
Terminal bud - The bud at the tip of a twig or stem. (a, figs. 47,49)
Thorns - Sharp projections which are connected with the woody structure; they are modified branches.
Thyrsoid - Like a thyrsus.
Thyrsus - A compound flower cluster resembling a bunch of grapes.
Tomentum - Soft, matting hairs.
Truncate - Cut off squarely at base or tip. (Fig 19)
Twice-compound - The leaflets borne on secondary branches of leaf axis. (Fig 3)
Twining - The stem twisiting around a support.
Umbel - A flower-cluster with the pedicels all radiating from the end of the main flower-stalk. (Fig 48)
Undulate - Somewhat wavy, the waves broadly rounded. (Fig 42).
Unequal - Applied to the base of a leaf when the two sides are not of the same size and shape. (Fig 26)
Valvate - With edges coming together, not overlapping.
Whorled - With three or more leaves around the node. (Fig. 11)
Winged - With a flat marginal expansion, as on some fruits, petioles, etc.
Woolly - Covered densely with more or less curled or twisted hairs.

EXPLANATION OF FIGS. 1-22

The figures illustrate the following terms in the Glossary:

1.—Entire; equal; simple.
- a.—Blade
- b.—Petiole
- c.—Stipules
- d.—Midrib
- e.—Ribs
- f.—Axil of rib

2.—Compound; once compound; odd-pinnate; pinnately compound.
- a.—Leaflet
- b.—Petiole
- c.—Leaf-axis

3.—Compound; twice compound; even-pinnate.
- a.—Leaflet
- b.—Petiole
- c.—Leaf-axis

4.—Compound; palmately compound; digitate.
- a.—Leaflet

5. Lobed; palmately lobed; simple; equal.
- a.—Sinus
- b.—Lobe
- c.—Ribs

6.—Lobed; pinnately lobed; simple.
- a.—Sinus
- b.—Lobe

7.—Cleft
- a.—Sinus

8.—Cleft
- a.—Sinus

9.—Alternate
- a.—Nodes
- b.—Axil of leaf

10.—Opposite
- a.—Node

11.—Whorled
- a.—Node

12.—Connate

13.—Linear

14.—Lanceolate

15.—Falcate

16.—Ovate; entire.

17.—Oblong

18.—Oval

19.—Deltoid; truncate base.

20.—Cordate

21.—Orbicular; peltate.

22.—Cuneate

EXPLANATION OF FIGS. 23-50

23.—Oblanceolate
24.—Obovate
25.—Spatulate
26.—Oblique base; unequal.
27.—Retuse
28.—Emarginate
29.—Obtuse
30.—Mucronate
31.—Cuspidate
32.—Acute.
33.—Acuminate
34.—Serrate
35.—Doubly serrate
36.—Serrulate
37.—Crenate
38.—Crenulate
39.—Dentate
40.—Ciliate
41.—Cut-toothed; incised.
42.—Undulate
43.—Sinuate
44.—Repand
45.—Section of flower.
- a.—Calyx (sepal)
- b.—Corolla (petal)
- c.—Filament (stamen)
- d.—Anther (stamen)
- e.—Ovary (part of pistil)
- f.—Ovule
- g.—Style (part of pistil)
- h.—Stigma (part of pistil)
- i.—Receptacle
- j.—Pedicel

46.—Raceme
- a.—Bract
- j.—Pedicel

47.—Alternate; twig.
- a.—Terminal bud
- c.—Leaf-scar
- e.—Lenticel
- f.—Accessory bud

48.—Umbel
- a.—Bract
- j.—Pedicel

49.—Opposite; twig.
- a.—Terminal bud
- b.—Axillary bud
- c.—Leaf-scar
- d.—Bundle-scar
- e.—Lenticel

50.—Alternate; twig.
- b.—Axillary bud
- c.—Leaf-scar
- d.—Bundle-scar
- f.—Accessory bud