

2ND EDITION

Wildflowers *of* Minnesota

Field Guide



Stan Tekiela

Flowers that are mostly blue pg. 19

Flowers that are mostly brown pg. 73

Flowers that are mostly green pg. 77

Flowers that are mostly orange pg. 93

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Flowers that are mostly yellow pg. 327

Wildflowers *of* Minnesota Field Guide

Stan Tekiela

Adventure Publications
Cambridge, Minnesota

Dedication

To my daughter, Abigail Rose. The sweetest flower in my life.

Acknowledgments

I would like to thank Kathy Heidel, a very special naturalist with extraordinary knowledge of the wildflowers of Minnesota. I will always have a special place in my heart for her. And thanks to John D. Jackson, Ph.D., a botanist who continues to guide me through the wonderful world of wildflowers.

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Dudley Edmondson: 8 (spike left, round both, flat both), 9 (composite both, bell right, irregular left, tube left), 10 (twice compound both, palmate left), 11 (alternate both, clasping, right, opposite both, perfoliate left, whorl both), 18, 22, 28, 42 (inset), 58, 70, 90, 108, 118, 178, 182, 188 (main), 188 (leaf), 194, 200, 218, 222, 234, 238, 242, 246, 250, 260, 280, 282, 284 (main), 296, 308, 322, 338, 346, 362, 382, 384, 408; **David Fennell:** 176 (seed head); **Richard Haug:** 114, 198 (main); **Don Mammoser:** 224 (fruit); **Steve Mortensen:** 9 (regular left), 12 (pod right), 184 (fruit), 198 (fruit), 202 (main), 230 (fruit), 284 (fruit); and **Larry Weber:** 104 (main), 128

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MINNESOTA AND WILDFLOWERS

Minnesota is a great place for wildflower enthusiasts! Our state is at the crossroads of three major vegetative habitats. Each of these vegetative zones contains a wide and often unique variety of wildflowers. Our upper Midwest location is unique because we have a western wildflower influence, an even stronger eastern influence and a strong northern boreal influence. All of this means Minnesota is fortunate to have an extremely diverse, often unique and certainly a very healthy variety of wonderful wildflowers.

The *Wildflowers of Minnesota Field Guide* is an easy-to-use field guide to help the curious nature seeker identify 200 of the most common wildflowers in Minnesota. It features, with only a few exceptions, the herbaceous wildflowers of Minnesota. Herbaceous plants have soft green stems and die back to the ground each fall. Only a few plants with woody stems have been included because these particular plants are very common and have large showy flowers.

STRATEGIES FOR IDENTIFYING WILDFLOWERS

Determining the color of the flower is the first step in a simple five-step process to identify a wildflower.

Because this guide is organized by color, identifying an unknown wildflower is as simple as matching the color of the flower to the color section of the book. The color tabs on each page identify the color section.

The second step in determining the identity of a wildflower is the size. Within each color section, the flowers are arranged by the size of the flower, or flower cluster, from small to large. A plant with a single, small, yellow flower will be in the beginning of the yellow section while a large white flower will be towards the end of the white section. Sometimes flowers are made up of many individual flowers in clusters that are perceived to be

one larger flower. Therefore, these will be ordered by the size of the cluster, not the individual flower. See page 432 for rulers to help estimate flower and leaf size.

Once you have determined the color and approximate size, observe the appearance of the flower. Is it a single flower or cluster of flowers? If it is a cluster, is the general shape of the cluster flat, round or spike? For the single flowers, note if the flower has a regular, irregular, bell or tube shape. Also, counting the number of petals might help to identify these individual flowers. Compare your findings with the descriptions on each page. Examining the flower as described above should result in narrowing the identity of the wildflower down to just a few candidates.

The fourth step is to look at the leaves. There are several possible shapes or types of leaves. Simple leaves have only one leaf blade but can be lobed. Compound leaves have a long central leaf stalk with many smaller leaflets attached. Twice compound leaves have two or more leaf stalks and many leaflets. Sometimes it is helpful to note if the leaves have toothed or smooth margins (edges), so look for this also.

For the fifth step, check to see how the leaf is attached to the stem. Some plants may look similar but have different leaf attachments so this can be very helpful. Look to see if the leaves are attached opposite of each other along the stem, alternately, or whorled around a point on the stem. Sometimes the leaves occur at the base of the plant (basal). Some leaves do not have a leaf stalk and clasp the stem at their base (clasping) and in some cases the stem appears to pass through the base of the leaf (perfoliate).

Using these five steps (color, size, shape, leaves and leaf attachment) will help you gather the clues needed to quickly and easily identify the common wildflowers of Minnesota.

USING THE ICONS

Sometimes the botanical terms for leaf type, attachment and type of flower can be confusing and difficult to remember. Because of this, we have included icons at the bottom of each page. They can be used to quickly and visually match the main features of the plant to the specimen you are viewing without even needing to completely understand the botanical terms. By using the photos, text descriptions and icons in this field guide, you should be able to quickly and easily identify most of the common wildflowers of Minnesota.

The icons are arranged from left to right in the following order: flower cluster type, flower type, leaf type, leaf attachment and fruit. The first two flower icons refer to cluster type and flower type. While these are not botanically separate categories, we have made separate icons for them to simplify identification.

Flower Cluster Icons



(icon color is dependent on flower color)

Flat Round Spike

Any cluster (tightly formed group) of flowers can be categorized into one of three cluster types based on its over-all shape. The flat, round and spike types refer to the cluster shape which is easy to observe. Technically there is another cluster type, composite, which appears as a single daisy-like flower but is actually a cluster of many tiny flowers. Because this is often perceived as a flower type, we have included the icon in the flower type section. See page 9 for its description.

Some examples of cluster types



Flat



Round



Spike

Flower Type Icons



(icon color is dependent on flower color)

Regular Irregular Bell Tube Composite

Botanically speaking, there are many types of flowers but in this guide, we are simplifying them to five basic types. Regular flowers are defined as having a round shape with three or more petals, lacking a disk-like center. Irregular flowers are not round but uniquely shaped with fused petals. Bell flowers are hanging with fused petals. Tube flowers are longer and narrower than bell flowers and point up. Composite flowers (technically a flower cluster) are usually round compact clusters of tiny flowers appearing as one larger flower.

Some examples of flower types



Regular



Irregular



Bell



Tube



Composite

disk flowers

ray flowers

Composite cluster: Although a composite flower is technically a type of flower cluster, we are including the icon in the flower type category since most people not familiar with botany would visually see it as a flower type, not a flower cluster. A composite flower consists of petals (ray flowers) and/or a round disk-like center (disk flowers). Sometimes a flower has only ray flowers, sometimes only disk flowers or both.

Leaf Type Icons



Simple



**Simple
Lobed**



Compound



**Twice
Compound**



Palmate

Leaf type can be broken down into two main types; simple and compound. Simple leaves are leaves that are in one piece; the leaf is not divided into smaller leaflets. It can have teeth or be smooth along the edges. The simple leaf is depicted by the simple leaf icon. Simple leaves may have lobes and sinuses that give the leaf a unique shape. These simple leaves with lobes are depicted by the simple lobed icon.

Some examples of leaf types



Simple



Simple Lobed



Compound



Twice Compound



Palmate



Compound leaves have two or more distinct, small leaves called leaflets that arise from a single stalk. In this field guide we are dividing compound leaves into regular compound, twice compound or palmately compound leaves. Twice compound leaves are those that have many distinct leaflets arising from a secondary leaf stalk. Palmately compound leaves are those with three or more leaflets arising from a common central point.

Leaf Attachment Icons



Alternate Opposite Whorl Clasping Perfoliate Basal

Leaves attach to the stems in different ways. There are six main types of attachment, but a plant can have two different types of attachments. This is most often seen in the combination of basal leaves and leaves that attach along the main stem either alternate or opposite (cauline leaves). These wildflowers have some leaves at the base of the plant, usually in a rosette pattern, and some leaves along the stem. In these cases, both icons are included; for most plants, there will only be one leaf attachment icon.

Some examples of leaf attachment



Alternate



Opposite



Whorl



Clasping



Perfoliate



Basal

Alternate leaves attach to the stem in an alternating pattern while opposite leaves attach to the stem directly opposite from each other. Whorled leaves have three or more leaves that attach around the stem at the same point. Clasping leaves have no stalk and the base of the leaf partly surrounds the main stem. Perfoliate leaves are also stalkless and have a leaf base that completely surrounds the main stem. Basal leaves are those that originate at the base of a plant, near the ground, usually grouped in a round rosette.

Fruit Icons



(icon color is dependent on berry or pod color)

Berry Pod

In some flower descriptions a fruit category has been included. This may be especially useful when a plant is not in bloom or when the fruit is particularly large or otherwise noteworthy. Botanically speaking, there are many types of fruit. We have simplified these often confusing fruit categories into two general groups, berry and pod.

Some examples of fruit types



Berry

Pod

The berry icon is used to depict a soft, fleshy, often round structure containing seeds. The pod icon is used to represent a dry structure that, when mature, splits open to release seeds.

BLOOMING SEASON

Most wildflowers have a specific season of blooming. For example, you probably won't see the common spring-blooming Yellow Trout Lily blooming in summer or fall. Knowing the season of bloom can help you narrow your selection as you try to identify an unknown flower. In this field guide, spring usually means April, May and the first half of June. Summer refers to the last half of June, July and August. Fall usually means September and October.

LIFE CYCLE/ORIGIN

The life cycle of a wildflower describes how long a wildflower lives. Annual wildflowers are short-lived. They sprout, grow and bloom in only one season, never to return except from seed. Most wildflowers have perennial life cycles that last many years. Perennial wildflowers are usually deeply rooted plants that grow from the roots each year. They return each year from their roots, but they also produce seeds to start other perennial plants. Similar to the annual life cycle is the biennial cycle. This group of plants takes two seasons of growth to bloom. The first year the plant produces a low growth of basal leaves. During the second year, the plant sends up a flower stalk from which it produces seeds, from which new plants can be started. However, the original plant will not return for a third year of growth.

Origin indicates whether the plants are native or non-native. Most of the wildflowers in this book originate in Minnesota and are considered native plants. Non-native plants were often unintentionally introduced when they escaped from gardens or farms. Most non-native plants are now naturalized in Minnesota.

Some plants are also considered invasive (nonnative and capable of destructive spread) or noxious (detrimental to the environment, people or economy). Learn more about the problem plants and other invasives in Minnesota by visiting www.dnr.state.mn.us/invasives/terrestrialplants/index.html

HABITATS

Some wildflowers thrive only in specific habitats. They may require certain types of soil, moisture, pH levels, fungi or nutrients. Other wildflowers are generalists and can grow just about anywhere. Sometimes noting the habitat surrounding the flower in question can be a clue to its identity.

RANGE

The wide variety of habitats in Minnesota naturally restricts the range of certain wildflowers that have specific requirements. For example, a wildflower such as Pearly Everlasting that requires dry acid soils may only be found in northeastern Minnesota. Sometimes this section can help you eliminate a wildflower from consideration just based on its range. However, please keep in mind that the ranges indicated are general notations on where the flower is commonly found. They are general guidelines only and there will certainly be exceptions to these ranges.

STAN'S NOTES

Stan's Notes is fun and fact-filled with many interesting "gee-whiz" tidbits of information such as historical uses, other common names, insect relationship, color variations and much more. Much of the information in this section cannot be found in other wildflower field guides.

BOUNDARY WATERS CANOE AREA WILDERNESS/NATIVE PRAIRIE PLANTS



Near the page number on many of the wildflowers, you will notice a canoe or bunch of grass. These icons will help you quickly identify which wildflowers are common to the Boundary Waters Canoe Area Wilderness and which inhabit one of Minnesota's rarest of habitats, the native prairie. A lack of such a symbol does not mean you absolutely won't find

these plants in these areas, it just means they aren't commonly seen there. These are indicated because many people travel to canoe the BWCAW and this guide will help to identify the wildflowers there. And, more and more people are becoming interested in native prairies and their value to our ecosystem. Many people travel to the remaining native prairies and this will guide will help to identify the wildflowers that grow in these habitats.

CAUTION

A word of caution. In Stan's Notes, it is mentioned that in some cultures, some of the wildflowers were used for medicine or food. While some find this interesting, DO NOT use this guide to identify edible or medicinal plants. Some of the wildflowers in Minnesota are toxic or have toxic look-alikes that can cause severe problems. Do not take the chance of making a mistake. Please enjoy the wildflowers with your eyes, nose or with your camera. In addition, please don't pick, trample or transplant any of the wildflowers you see. The flower of a plant is its reproductive structure and if you pick a flower you have eliminated its ability to reproduce itself. Transplanting wildflowers is another destructive occurrence. Most wildflowers need specific soil types, pH levels or special bacteria or fungi in the soil to grow properly. If you try to transplant a wildflower to a habitat not suitable for its particular needs, the wildflower most likely will die. Many of our Minnesota wildflowers are now available from your local garden centers. These wildflowers have been cultivated and have not been dug from the wild.

Enjoy the Wild Wildflowers!

A handwritten signature in black ink, appearing to read "Stan", written in a cursive, flowing style.

sample
page



Common Name

Scientific name

Color Indicator —

Family: plant family name

Height: average range of mature plant

Flower: general description, type of flower, size of flower, number of petals

Leaf: general description, size, leaf type, type of attachment, toothed or smooth

Fruit: berry or pod

Bloom: spring, summer, fall

Cycle/Origin: annual, perennial, biennial, native, non-native

Habitat: general environment in which you are likely to find the flower

Range: an approximate range where the flower is found

Stan's Notes: helpful identification information, history, origin and other interesting, "gee-whiz" nature facts

Not all icons are found on every page. See preceding pages for icon descriptions.

Some pages have one of these icons indicating the flower is prevalent in the BWCAW or native prairies.



CLUSTER TYPE

Spike



FLOWER TYPE

Irregular



LEAF TYPE

Palmate



LEAF ATTACHMENT

Basal



FRUIT

Pod



Forget-me-not

Myosotis scorpioides

Family: Borage (Boraginaceae)

Height: 6–12" (15–30 cm)

Flower: a fusion of 5 petals forms tiny baby blue flowers with yellow centers (eye); each flower, 1/4" (.6 cm) wide, sits atop 2 uncoiling stems; stems are curled and unfurl when the flowers begin to bloom

Leaf: blunt, lance-shaped stemless leaves, 1–2" (2.5–5 cm) long, alternate along the stem; each leaf is covered in fine hair

Bloom: spring, summer, fall

Cycle/Origin: perennial, non-native

Habitat: wet, shade, along streams, rivers and creeks

Range: locally around cities and homes

Stan's Notes: Also called True Forget-me-not, this Eurasian import has escaped gardens and grows along Minnesota's rivers and streams. It can live directly in water but is usually found in moist soil, growing in large mats along an extensive fibrous root system. Four species of Forget-me-not are found in Minnesota, some native. Another old name for this plant, Scorpion Weed, refers to its coiled flower stalk, which resembles the coiled tail of a scorpion. Some suggest that the common name comes from the plant's unpleasant taste or odor that is hard to forget. Another story is about a suitor who reached too far over a cliff to obtain the flower for his love, fell and cried out, "Forget me not!"



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



Creeping Charlie

Glechoma hederacea

Family: Mint (Lamiaceae)

Height: 5–8" (12.5–20 cm)

Flower: light blue-to-purple flowers, 1/4–3/4" (.6–2 cm) long; 2–4 flowers on short stalks that arise at a leaf joint; 5 petals fuse to form a flower

Leaf: round, sometimes kidney-shaped leaves, 1/2–1 1/2" (1–4 cm) wide, with deep veins and coarse scalloped teeth along the edge; often purplish in color with a wavy edge

Bloom: spring, summer

Cycle/Origin: perennial, non-native

Habitat: dry, shade, disturbed soil and especially lawns

Range: throughout

Stan's Notes: This is not an ivy but a Eurasian import of the Mint family. Like all mints, its stem is square and it has opposite leaves. It roots to the ground at each leaf attachment (node), allowing the plant to creep across the ground, hence one of its common names, Ground Ivy. Another common name, Gill-over-the-ground, comes from the French *guiller* (to ferment), because its leaves were once used to ferment and flavor beer. It grows in large carpets in moist semi-shaded areas and is considered a weed because of its aggressive growing nature.



FLOWER TYPE

Irregular



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Blue-eyed Grass

Sisyrinchium montanum

Family: Iris (Iridaceae)

Height: 4–20" (10–50 cm)

Flower: a collection of tiny blue flowers with a bright yellow center, individual flowers, ½" (1 cm) wide, have 6 petals, each tipped with a small point; each flower group rises from a short stalk, which in turn comes from a longer leaflike stem

Leaf: thin, pointed, grass-like leaves, ¼" (.6 cm) wide, up to 20" (50 cm) long, that are often confused with blades of grass

Fruit: a round pod

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: wet, meadows, roadsides, prairies

Range: throughout

Stan's Notes: Often confused with a type of grass, Blue-eyed Grass is actually a member of the Iris family. The most common of several species in Minnesota and one of over 40 species in North America, Blue-eyed Grass has fibrous vertical roots, unlike the more common irises, which spread on a horizontal rhizome. Like other irises, Blue-eyed Grass is made up of three sepals (leaves that look like petals) and three petals. Each petal is shallowly notched with tiny tips. Stems can sometimes be bluish purple.



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Basal



FRUIT

Pod



Round-lobed Hepatica

Anemone americana

Family: Buttercup (Ranunculaceae)

Height: 4–6" (10–15 cm)

Flower: flowers have 5–9 petal-like sepals that range in color from pale blue to lavender, pink and white, and have 3 green bracts underneath; each flower, ½–1" (1–2.5 cm) wide, sits on a single hairy stalk and sometimes droops downward

Leaf: each basal leaf has 3 round lobes rising from a thin hairy stalk

Bloom: spring

Cycle/Origin: perennial, native

Habitat: dry, shade, deciduous woods

Range: throughout, but more common in the northern half

Stan's Notes: One of the spring ephemerals, Round-lobed Hepatica retains its leaves all winter and quickly sends up flowers each spring before the trees above have a chance to produce leaves and shade it out. Previous year's leaves are dark purple to brown, while new growth is a light green. Called "Hepatica" because the lobes of the leaves resemble the three lobes of the liver, which early herbalists interpreted to mean that this plant was good for treatment of liver troubles—not true. Nearly identical to Sharp-lobed Hepatica (pg. 27), which has pointed lobed leaves. Also called Liverleaf. The stems of pollinated flowers lengthen and droop toward the ground where ants collect and disperse the seeds.



FLOWER TYPE

Regular



LEAF TYPE

Simple Lobed



LEAF ATTACHMENT

Basal



Sharp-lobed Hepatica

Anemone acutiloba

Family: Buttercup (Ranunculaceae)

Height: 4–6" (10–15 cm)

Flower: flowers have 5–9 petal-like sepals that range in color from pale blue to white, lavender and pink, and have 3 green bracts underneath; each flower, ½–1" (1–2.5 cm) wide, sits on a single hairy stalk that may droop

Leaf: each basal leaf has 3 sharply pointed lobes rising from a thin hairy stalk

Bloom: spring

Cycle/Origin: perennial, native

Habitat: dry, shade, deciduous woods

Range: throughout, but more common in southern half

Stan's Notes: Nearly identical to Round-lobed Hepatica (pg. 25) with the exception of the shape of the leaf. The dark purple-to-brown leaves from last season remain under snow and become active when snow melts, allowing the plant to “awake” earlier than other woodland plants. New green leaves are produced shortly after. The name “Hepatica” refers to the three lobes of the leaves that resembles the three lobes on the human liver, which is why early herbalists believed this plant was good for the treatment of liver disease. Flowers stand on tall erect stems but lengthen after pollination and droop to the forest floor where ants can reach the forming seeds, which they collect and disperse.



FLOWER TYPE

Regular



LEAF TYPE

Simple Lobed



LEAF ATTACHMENT

Basal



Harebell

Campanula rotundifolia

Family: Bellflower (Campanulaceae)

Height: 6–20" (15–50 cm)

Flower: pale blue-to-purple bell-shaped flowers, $\frac{3}{4}$ " (2 cm) long, each formed from 5 fused petals and found nodding from a thin stem

Leaf: round basal leaves, $\frac{1}{2}$ –1" (1–2.5 cm) wide, that often wither before flowering, and linear grass-like leaves, 3" (7.5 cm) long and $\frac{1}{8}$ – $\frac{1}{4}$ " (.3–.6 cm) wide, alternate along the stem

Bloom: summer

Cycle/Origin: perennial, native

Habitat: wet, sun, rocky outcroppings along rivers, meadows, prairies

Range: throughout

Stan's Notes: Also called Bluebell, the Harebell, one of several species of *Campanula* found in Minnesota, is the smallest member with the thinnest and weakest stem. Its basal leaves are round, hence the species name, *rotundifolia* (round leaf). Like other members of this genus, its stems exude a milky sap. Its drooping flowers are adapted for specific insect pollination and also protect the pollen from rain and dew. The Harebell often grows in clumps and does well in gardens, but please don't dig it from the wild. This circumpolar plant grows at similar latitudes all around the world.



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Basal



Asiatic Dayflower

Commelina communis

Family: Spiderwort (Commelinaceae)

Height: 1–3' (30–90 cm)

Flower: usually only one blue-and-white flower, $\frac{3}{4}$ " (2 cm) wide, located at the tip of each stem; flower has 3 petals—2 upper blue and 1 lower white

Leaf: toothless, stalkless, lance-shaped leaves, 3–5" (7.5–12.5 cm) long, attach directly to the stem, with the leaf base folding around the stem at the point of attachment; leaves nearest the flowers are much smaller and nearly heart-shaped, sometimes cradling the flower

Bloom: spring, summer, fall

Growth: annual, non-native

Habitat: moist, disturbed areas, roadsides, gardens

Range: in and around large metropolitan areas of the state

Stan's Notes: As its name suggests, the Asiatic Dayflower, essentially a garden weed, was introduced from Asia. It is usually found only in metro areas because it most often reaches gardens from purchased bags of soil. Flowers bloom only for one day, hence the common name, "Dayflower." Its species name, *communis*, refers to the colonies it forms by rooting from each stem node (where each leaf attaches). Several similar species are also found in Minnesota. This is a host plant for Pearl Crescent butterfly caterpillars.



FLOWER TYPE

Irregular



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Clasping



Large-leaved Aster

Eurybia macrophylla

Family: Aster (Asteraceae)

Height: 1–5' (30–150 cm)

Flower: delicate, pale blue (sometimes white) flowers, 1" (2.5 cm) wide, each with 10–20 petals (ray flowers) and a yellow center (disk flowers) that turns red with age; 2–20 flowers per plant grow on a purplish stem

Leaf: large, coarsely toothed, heart-shaped basal leaves, soft to touch, 4–8" (10–20 cm) long, that are deeply notched where they attach to the stalk; smaller, stalkless, lance-shaped leaves alternate along the stem (cauline)

Bloom: summer, fall

Cycle/Origin: perennial, native

Habitat: dry, shade, deciduous woods

Range: north and east of the Twin Cities

Stan's Notes: A very common plant of the BWCAW, the Large-leaved Aster sometimes carpets the ground, excluding other plants. Only about 1 in 50 plants sends up a flower stalk each year. The plant reproduces along a horizontal underground root system (rhizomes). Its flower stalks are sticky to the touch because of miniature glands. Because of their size and availability, the large leaves of this plant are often used as emergency toilet paper.



FLOWER TYPE

Composite



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Basal



Tall Bellflower

Campanula americana

Family: Bellflower (Campanulaceae)

Height: 3–6' (90–180 cm)

Flower: a single spike cluster, 1–2' (30–60 cm) long; individual flowers, 1" (2.5 cm) wide, are light blue-to-purple with a white ring in the center of the flower (throat); each flower is made up of 5 pointed (and often twisted) petals

Leaf: pointed, toothed lance-shaped leaves, 3–6" (7.5–15 cm) long

Bloom: summer

Cycle/Origin: perennial, native

Habitat: wet, shade, deciduous woods, along forest edges

Range: southern half of the state

Stan's Notes: A tall native flower of the shady borders of deciduous woods, Tall Bellflower is one of the tallest members of the Bellflower family, often growing to 5–6' (150–180 cm). Its regular flowers are unusual because most members of this family have tube or bell-like flowers. Bellflower is a biennial that re-seeds itself. In its first year, it's a tight rosette of leaves; in its second year, it sends up a flower stalk.



CLUSTER TYPE

Spike



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



Virginia Bluebells

Mertensia virginica

Family: Borage (Boraginaceae)

Height: 10–24" (25–60 cm)

Flower: groups of light blue, elongated bell-shaped flowers; each flower, 1" (2.5 cm) long, has 5 petals that fuse into a long tube (corolla)

Leaf: basal leaves, 8" (20 cm) long, are much longer than stem leaves, 2–4" (5–10 cm) long; bluish green stem leaves (cauline) are alternately attached, smooth, round and toothless

Bloom: spring

Cycle/Origin: perennial, native

Habitat: wet, shade, in clearings and along the edges of deciduous woods

Range: southeastern corner of the state

Stan's Notes: Also called Lungwort, Virginia Cowslip or Hokoh Bluebells, Virginia Bluebells is a wonderful, pale blue, spring wildflower found in the southeastern portion of the state. Its flower buds begin pink but turn to light blue as flowers bloom, and its semi-succulent leaves have deep veins. A northern species (*M. paniculata*) grows along the North Shore of Lake Superior and has pointed leaves that are covered with fine hairs. Virginia Bluebells are often found in large patches that carpet the forest floor.



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Basal



Bottle Gentian

Gentiana andrewsii

Family: Gentian (Gentianaceae)

Height: 1–2' (30–60 cm)

Flower: a round, dense cluster of bluish purple closed-tube flowers, 1–1½" (2.5–4 cm) long, sits atop the plant; each flower is made up of 5 fused petals that provide no apparent entrance into the flower

Leaf: toothless, lance-shaped leaves with 3 main veins; their sides bend upwards to form a trough; opposite leaves lower and whorled leaves near each flower cluster

Fruit: papery pod, roughly the size and shape of the flowers, contains hundreds of tiny brown seeds

Bloom: summer, fall

Cycle/Origin: perennial, native

Habitat: moist, sun, prairies, along railroad beds, old fields

Range: throughout

Stan's Notes: The Bottle Gentian is also called the Closed Gentian due to its curiously closed flowers, which keep out all but the largest insects. Bumblebees force themselves inside the flower through the top by pushing apart the petals. A wonderful perennial of the prairie, also called Prairie Gentian, this wildflower can also be grown in a garden—but please do not dig it from the wild. One of at least seven species of gentian in Minnesota.



FLOWER TYPE

Tube



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



LEAF ATTACHMENT

Whorl



FRUIT

Pod



Virginia Waterleaf

Hydrophyllum virginianum

Family: Waterleaf (Hydrophyllaceae)

Height: 1–2' (30–60 cm)

Flower: round cluster, 1–1½" (2.5–4 cm) wide, of light blue-to-white, bell-shaped flowers, each ¼–½" (.6–1 cm) long; each flower has 5 petals that fuse to form a bell, and its inner flower parts conspicuously stick out beyond the petals

Leaf: large leaves, 5–6" (12.5–15 cm) long, with 5–7 sharply toothed lobes per leaf; leaves are often covered in white or gray "water spots"

Bloom: spring

Cycle/Origin: perennial, native

Habitat: moist deciduous woods

Range: throughout, except for the northern edge

Stan's Notes: A common plant of moist deciduous forests, Virginia Waterleaf often grows in large mats by reproducing along underground roots (rhizomes). Its leaves are often covered with white "water spots," hence the common name, "Waterleaf." The leaf spots are more obvious early in the spring and fade by early summer; the entire plant dies back to the ground by midsummer. A shade-loving plant that works well as ground cover or as fill-in for a shady yard or garden. Use a hand lens to view the center of the flower. The frilly stamens form a beautiful lavender pink lace.



CLUSTER TYPE

Round



FLOWER TYPE

Bell



LEAF TYPE

Simple Lobed



LEAF ATTACHMENT

Alternate



Chicory

Cichorium intybus

Family: Aster (Asteraceae)

Height: 1–4' (30–120 cm)

Flower: sky blue stalkless flowers, 1½" (4 cm) wide, each with up to 20 petals (ray flowers) sparsely populate a tall stem and close by early afternoon; petals are square-tipped and fringed; the color ranges from white to pink, depending upon age and location

Leaf: long, toothed basal leaves similar to those of a dandelion, 3–6" (7.5–15 cm) long; stem leaves (cauline) are oblong and much smaller, ½–1" (1–2.5 cm) long, lack teeth and clasp the stem

Bloom: summer, fall

Cycle/Origin: perennial, non-native

Habitat: dry, sun, along roads, open fields

Range: southern half of the state, but can also be found near cities in northern Minnesota

Stan's Notes: Also known as Blue Sailor or Ragged Sailor, the Chicory's few flowers open one at a time and last only one day. This European import, believed to come from Eurasia, was brought to the U.S. to be cultivated for its long taproot, which can be roasted and ground as a coffee substitute or additive. Its leaves, like those of the dandelion, are edible, high in vitamins and minerals, but quite bitter.



FLOWER TYPE

Composite



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Basal



LEAF ATTACHMENT

Clasping



Bird's-foot Violet

Viola pedata

Family: Violet (Violaceae)

Height: 4–10" (10–25 cm)

Flower: deep blue-to-purple flowers, 1½" (4 cm) wide, each with 5 distinct petals; the lower petals are wider than the upper, but all have a white-lined throat with a small orange center; the flowers usually stand up above the leaves on their own stalk

Leaf: characteristically, narrowly lobed leaves, 1–2" (2.5–5 cm) wide, that resemble a bird's foot; each of the 3 main lobes are themselves lobed; each leaf rises from the base of the plant on its own stalk

Bloom: spring

Cycle/Origin: perennial, native

Habitat: dry, sunny fields, prairies, open woods

Range: southeastern quarter of state

Stan's Notes: One of almost 80 species of violet found in North America (and over 900 worldwide), the Bird's-foot Violet looks similar to the Prairie Violet. The Prairie Violet, however, has darker blue petals and a less pronounced orange center. Like all violets, they are highly variable and related to the annual pansy. Fortunately, its "bird's foot" leaves make it one of the easiest violets to identify. Look for it in cracks of rocks and in dry open fields. This plant is a host plant for the Fritillary butterfly.



FLOWER TYPE

Irregular



LEAF TYPE

Simple Lobed



LEAF ATTACHMENT

Basal



Creeping Bellflower

Campanula rapunculoides

Family: Bellflower (Campanulaceae)

Height: 1–3' (30–90 cm)

Flower: soft bluish purple, bell-shaped flowers, 1–2" (2.5–5 cm) long, line up along a tall stem and almost always point downward; each flower is comprised of 5 sharply pointed petals fused together to form the bell-shaped flower

Leaf: heart-shaped lower leaves, 2" (5 cm) long, lance-shaped stem leaves (cauline) with fine teeth, ½–1" (1–2.5 cm) long

Fruit: downward-drooping pod-like containers hold many tiny seeds

Bloom: summer, fall

Growth: perennial, non-native

Habitat: dry, sun, fields, old homesteads

Range: throughout

Stan's Notes: Although native to Eurasia, the Creeping Bellflower is also called the European Bellflower and was undoubtedly introduced to the U.S. through Europe. Once a common garden plant, it has escaped cultivation and can now be found growing in the wild near old homesteads and abandoned gardens. It flowers only on one side of the stem. Spreads by underground stems, and once established, it is often difficult to eliminate.



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



FRUIT

Pod



Spiderwort

Tradescantia occidentalis

Family: Spiderwort (Commelinaceae)

Height: 10–24" (25–60 cm)

Flower: a cluster of up to 10 flowers, each 1–2" (2.5–5 cm) wide, with 3 violet-blue petals surrounding a golden yellow center; flowers open only a few at a time and are sometimes pink to white

Leaf: very long grass-like leaves, 15" (37.5 cm) long, clasp the stem; each leaf is folded lengthwise, forming a V-groove; long parallel veining

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: dry, sun, meadows, fields, along roads, prairies

Range: throughout

Stan's Notes: An unusual-looking plant, Spiderwort's exotic flowers open in the morning and often wilt by noon on hot days. The wilted flowers sometimes leave a wet residue, giving it another common name, Widow's Tears. While "wort" means "plant," "Spider" may refer to its mucilaginous sap, which strings out like a spider's web when the leaf is torn. It is also said that the plant's jointed stems appear like a giant spider's legs. When this plant is exposed to air pollution, its flowers change from blue to purple; therefore it has been used as a natural barometer for air quality.



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Clasping



Pasqueflower

Anemone patens

Family: Buttercup (Ranunculaceae)

Height: 4–10" (10–25 cm)

Flower: pale blue-to-white (rarely purple) flower, 1–2" (2.5–5 cm) wide, with 5–7 petal-like sepals surrounding a yellow center; grows on a single, densely haired stem

Leaf: long-stalked, deeply lobed, basal leaves, along with stalkless whorled leaves, present just beneath the flower; each leaf is deeply divided with very narrow lobes, 1/8" (.3 cm) wide, and covered in long silky hairs that make it look gray

Bloom: early spring

Cycle/Origin: perennial, native

Habitat: dry, sun, prairies

Range: southern half of state, northwest corner of state

Stan's Notes: Also called Crocus, the Pasqueflower is one of the earliest plants to bloom in Minnesota, usually only found in native prairies on sunny slopes. The entire plant, including the flowers, is covered with silvery soft hairs that may trap warm air next to the plant in the cool spring air. The common name is derived from its blooming time, often during the Easter (Paschal) season. Has long, feathery, plume-like hairs, 1–2" (2.5–5 cm), that carry seeds away on the wind.



FLOWER TYPE

Regular



LEAF TYPE

Simple Lobed



LEAF ATTACHMENT

Basal



LEAF ATTACHMENT

Whorl



Heal-all

Prunella vulgaris

Family: Mint (Lamiaceae)

Height: 6–12" (15–30 cm)

Flower: thick compact spikes, 1–2" (2.5–5 cm) long, of violet-blue flowers; individual flowers, 1/2" (1 cm) long, have upper petals forming a hood, while lower petals form a landing platform (lip) for insects

Leaf: lance-shaped toothless leaves, 1–3" (2.5–7.5 cm) long, with short leafstalks; leaves sometimes have tiny wing-like leaves, 1/3" (.8 cm) long, growing from the point of attachment

Bloom: spring, summer, fall

Cycle/Origin: perennial, non-native

Habitat: wet, shade, lawns, fields, along roads

Range: throughout

Stan's Notes: Also called Self-heal and All-heal. The common names refer to this plant's use as a folk medicine in many cultures throughout the world. It is most commonly used in throat remedies, but little evidence of its effectiveness exists. Heal-all grows in large patches in lawns (where it prefers light shade) and will adapt to being mowed, forming a very low plant 2" (5 cm) tall. Like most members of the Mint family, Heal-all has a square stem and opposing leaves and emits a faint odor when crushed.



CLUSTER TYPE

Spike



FLOWER TYPE

Irregular



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Giant Blue Hyssop

Agastache foeniculum

Family: Mint (Lamiaceae)

Height: 2–4' (60–120 cm)

Flower: a thick spike cluster, 1–3" (2.5–7.5 cm) long, of many light blue flowers; individual flowers, 1/4" (.6 cm) long, are tightly packed together to give the appearance of 1 large single spike flower

Leaf: sharply pointed, lance-shaped, toothed leaves, 2–3" (5–7.5 cm) long, often whitish underneath, attached with a short leafstalk

Bloom: summer

Cycle/Origin: perennial, native

Habitat: dry, sun or shade, deciduous woods, prairies

Range: throughout

Stan's Notes: One of the largest members of the Mint family, the Giant Blue Hyssop, like all mints, has a square four-sided stem. Its opposing leaves smell strongly of anise (black licorice) when crushed, and make a very pleasant licorice-flavored tea. The Giant Blue Hyssop grows well in gardens but usually falls over by the end of summer. Spreads by producing hundreds of tiny black seeds. It blooms at the same time as Black-eyed Susans, resulting in a beautiful color combination. Flowers are very attractive to bees.



CLUSTER TYPE

Spike



FLOWER TYPE

Tube



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Lead Plant

Amorpha canescens

Family: Pea or Bean (Fabaceae)

Height: 1–3' (30–90 cm); shrub

Flower: a tight spike cluster, 1–3" (2.5–7.5 cm) long, of many small bluish purple flowers; individual flowers, 1/6" (.5 cm) long, with protruding orange centers

Leaf: a single leaf, 1–3" (2.5–7.5 cm) long, is divided up into as many as 50 leaflets, 1/2" (1 cm) wide and 3/4" (2 cm) long; leaves are covered with fine gray hairs, giving them a woolly grayish appearance

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: dry, sun, prairies

Range: throughout, except for the Arrowhead Region

Stan's Notes: A woody shrub of dry prairies, Lead Plant can live for centuries and still not grow larger than 3' (90 cm) tall. Its large stringy root system gathers any available water, giving the plant the name of Prairie Shoestring. Roots dwell deep into the prairie soil, up to 10' (3 m) into the ground. Many parts of the plant have been used in folk medicine and a tea can be made from its leaves. The genus name, *Amorpha*, comes from the Greek *amorphos* (deformed), and refers to its single petal flower, which is not typical of the Pea or Bean family. Named "Lead Plant" because it grew on the dry soils overlaying lead ore deposits in southeastern Wisconsin.



CLUSTER TYPE

Spike



LEAF TYPE

Compound



LEAF ATTACHMENT

Alternate



Fringed Gentian

Gentianopsis crinita

Family: Gentian (Gentianaceae)

Height: 1–3' (30–90 cm)

Flower: deep violet-blue flowers, 2" (5 cm) long, 1 per stalk, with blue-tipped green sepals surrounding 4 elongated petals that form the flower tube; each petal is frayed or fringed on the end

Leaf: lance-shaped toothless leaves, 1–2" (2.5–5 cm) long, with a round base nearly clasp the stem; prominent central vein ends at a pointed tip

Bloom: summer, fall

Cycle/Origin: biennial, native

Habitat: wet, prairies, meadows, along streams

Range: throughout

Stan's Notes: A spectacular flower of prairies, the Fringed Gentian is a true biennial that takes two years to bloom and should never be picked or dug up. One of the last wildflowers to bloom, it waits until late summer or autumn to produce flowers. Its ragged petal tips provide the first part of its common name. The second part, "Gentian," comes from King Gentius of Illyria, who discovered some medicinal properties in its roots. The Fringed Gentian is often found growing in wet spots within native prairies. The flower relies on a mycorrhizal relationship, the lack of which directly affects the presence or abundance of this wildflower.



FLOWER TYPE

Tube



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Wild Blue Phlox

Phlox divaricata

Family: Phlox (Polemoniaceae)

Height: 10–20" (25–50 cm)

Flower: round clusters, 2–3" (5–7.5 cm) wide, of pale blue flowers; individual flowers, 1" (2.5 cm) wide, are made up of 5 petals fused together at the base into a short tube

Leaf: toothless, lance-shaped leaves, 1–2" (2.5–5 cm) long, grow opposite along the stem without a leafstalk

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: wet, shade, deciduous woods

Range: southern half of the state

Stan's Notes: Also called Wood Phlox or Blue Phlox, Wild Blue Phlox is a single-stemmed woodland wildflower that grows in the dappled sunlight of the forest floor. Its fragrant flowers are occasionally white or dark blue, and its stems are often hairy and sticky to the touch. It is closely related to garden phlox. Closed flower buds have twisted petals appearing like a torch; the name "Phlox" is Greek for "flame." This plant blooms around Mother's Day and in bygone years was often picked to add to wildflower bouquets for Mother.



CLUSTER TYPE

Round



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Blue Vervain

Verbena hastata

Family: Vervain (Verbenaceae)

Height: 2–6' (60–180 cm)

Flower: tall thin spikes, 2–5" (5–12.5 cm) long, of small, deep blue-to-purple, tube-like flowers, 1/8" (.3 cm) long; 5 petals fuse at the base to form a short tube

Leaf: matched pairs of narrow, lance-shaped, toothed leaves, 4–6" (10–15 cm) long; lower leaves are sometimes 3-lobed

Bloom: summer

Cycle/Origin: perennial, native

Habitat: wet, along ditches, shores, wet fields, roadsides

Range: throughout

Stan's Notes: Blue Vervain is a tall slender plant with multiple pencil-thin flower spikes that bloom from the bottom up. Its stems are square with opposite leaves, which is why it is often confused with a member of the Mint family. In ancient times it was thought the plant had medicinal properties, giving rise to the genus name *Verbena*, Latin for "sacred plant." It rarely produces a pink flower and is often confused with Hoary Vervain (pg. 165). Visited by many butterflies and bees for its high nectar content.



CLUSTER TYPE

Spike



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Blue Flag Iris

Iris versicolor

Family: Iris (Iridaceae)

Height: 2–3' (60–90 cm)

Flower: several large blue or violet flowers, 2½–4" (6–10 cm) wide, rising on tall stiff stalks; the center of the lowest petals (sepals) are beardless (no bristles) with a white patch (throat) trimmed in yellow

Leaf: narrow grass-like blades, 1" (2.5 cm) wide and 8–32" (20–80 cm) long; similar to garden irises

Fruit: large green pod, 1½–2" (4–5 cm) long, with round ends containing multiple seeds

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: wet, sun or shade, edges of wetlands, lakes and rivers

Range: throughout

Stan's Notes: Also called the Northern Iris, this wildflower is usually found along water growing in clumps of tall, erect, sword-like leaves with many flowers. These clumps are created by a toxic, horizontal, underground root (rhizome) which many cultures have used as medicine. Its largest petals are actually modified leaves (sepals). Insects entering the flower must walk along the sepals and pass under the plant's male and female flower parts, thus completing pollination. "Iris" is derived from the Greek word for "rainbow," and describes the wide range of flower colors in the Iris family.



FLOWER TYPE

Irregular



LEAF TYPE

Simple



LEAF ATTACHMENT

Basal



FRUIT

Pod



Wild Lupine

Lupinus perennis

Family: Pea or Bean (Fabaceae)

Height: 1–3' (30–90 cm)

Flower: a spike, 3–7" (7.5–18 cm) long, of blue pea-like flowers, each $\frac{2}{3}$ " (1.6 cm) wide; what appear to be 3 petals (called, from the top down, standard, wing and keel) are actually 5 petals fused together

Leaf: leaf stems arise from base of the plant and end with a palmate leaf, 5–10" (12.5–25 cm) wide, made of 7–11 small leaflets

Fruit: initially many green, fuzzy, pea-pod-shaped fruits, up to 2" (5 cm) long, turn black when mature, contain 10–20 small brown-to-black seeds

Bloom: late spring, early summer

Cycle/Origin: perennial, native

Habitat: dry, sandy soils in open woods, mostly in sunny fields or along roads, prairies

Range: southeastern half of the state

Stan's Notes: These pea-like flowers open under the weight of an insect, revealing a horn-shaped stamen that deposits pollen on its visitor. This is the only host plant for the Karner Blue butterfly caterpillar, an endangered species in Minnesota. A closely related garden escapee (*L. polyphyllus*) has multicolored flowers and grows in dense clusters (see inset photo).



CLUSTER TYPE

Spike



FLOWER TYPE

Irregular



LEAF TYPE

Palmate



LEAF ATTACHMENT

Basal



FRUIT

Pod



Pickerelweed

Pontederia cordata

Family: Pickerelweed (Pontederiaceae)

Height: aquatic

Flower: many spike clusters, 4–6" (10–15 cm) long, of blue flowers; individual flowers, 1/2" (1 cm) long, have 3 upper petals (the middle upper petal has 2 small yellow spots) and 3 lower petals

Leaf: pointed, toothless, heart-shaped leaves, 4–10" (10–25 cm) long, rise from an underwater root; each leaf is indented at the base, where the stalk attaches

Bloom: summer

Cycle/Origin: perennial, native

Habitat: lakes, wetlands, ponds, streams

Range: eastern half of the state

Stan's Notes: An aquatic plant that forms large mats, Pickerelweed's leaves and flowers rise above the water (it is rooted to the bottom of lakes). The common name refers to the Pickerel, a fish that shares a similar watery habitat. Leaves are similar to Arrowhead (pg. 215), but flowers are completely different in color, size and shape. Prefers shallow water, unlike the deep-water-loving White Water Lily (pg. 315) and the Yellow Water Lily (pg. 401). Visited by a small solitary bee, *Dufourea novaeangliae*, which visits only this plant for nectar and pollen.



CLUSTER TYPE

Spike



FLOWER TYPE

Irregular



LEAF TYPE

Simple



LEAF ATTACHMENT

Basal



False Indigo

Baptisia australis

Family: Pea or Bean (Fabaceae)

Height: 3–5' (90–150 cm)

Flower: irregular, dark bluish purple, pea-like flowers, ½–1" (1–2.5 cm) long, alternate along the stem to form spike clusters up to 10" (25 cm) long; flowers sit perpendicular to the stem; only large insects are heavy enough to open them and get inside to sip nectar

Leaf: gray green leaves, 1–3" (2.5–7.5 cm) long, composed of 3 leaflets; each leaflet is pointed near the base and wider at the tip

Fruit: a green pod, 1–3" (2.5–7.5 cm) long, that turns black and papery with age and splits open lengthwise to release small, round, brown seeds

Bloom: summer

Cycle/Origin: perennial, non-native

Habitat: dry, sun, open fields, prairies, along roads

Range: southern half of the state

Stan's Notes: The False Indigo is a shrub-like perennial that dies into the ground each year. Once a favorite garden flower, it has escaped to the wild. The genus name, *Baptisia*, comes from the Greek *bapto* (to dye), and refers to its sap, which turns purple when exposed to the air. The poor quality of the indigo dye obtained from this plant provides the “False” part of its name.



CLUSTER TYPE

Spike



FLOWER TYPE

Irregular



LEAF TYPE

Compound



LEAF ATTACHMENT

Alternate



FRUIT

Pod



Wild Ginger

Asarum canadense

Family: Birthwort (Aristolochiaceae)

Height: 6–12" (15–30 cm)

Flower: a single, brown-to-greenish red, tube-shaped flower, 1–2" (2.5–5 cm) long, with 3 pointed lobes; located between 2 leafstalks at ground level

Leaf: a pair of large heart-shaped leaves, 3–6" (7.5–15 cm) wide; each leaf is soft and velvety due to dense hairs and has a deep notch where the stalk attaches

Bloom: spring

Cycle/Origin: perennial, native

Habitat: moist, shade, deciduous woods

Range: throughout

Stan's Notes: Wild Ginger's large flowers are located at ground level to accommodate ground-dwelling insects, such as beetles, that pollinate its flower. Its stems and leaves are covered with long white hairs, and each plant has a single flower located between the pair of leafstalks. It grows from a long horizontal rootstock and has a strong ginger-like odor when crushed (it is not, however, the same species of ginger that is used in Asian cooking).



FLOWER TYPE

Tube



LEAF TYPE

Simple



LEAF ATTACHMENT

Basal



Groundnut

Apios americana

Family: Pea or Bean (Fabaceae)

Height: 3–10' (90–300 cm); climbing vine

Flower: a round (sometimes spiked) cluster, 2–4" (5–10 cm) long, of small, brown-purple, waxy flowers, ½" (1 cm) wide; each cluster rises from a leaf attachment (axis) and is made up of 5–10 very fragrant flowers; each flower has 5 fused petals

Leaf: leaves, 6" (15 cm) long, usually made up of 5–7 pointed leaflets

Bloom: summer

Cycle/Origin: perennial, native

Habitat: wet, sun or shade, shrubby borders

Range: southern two-thirds of the state

Stan's Notes: A legume of the forest edge, the Groundnut is a climbing vine that covers other vegetation as it grows. Late in summer, the plant displays large clusters of very fragrant brown-purple flowers. The plant's long stringy roots produce small edible tubers similar to tiny potatoes, hence its common name. Native Americans once gathered its tubers for food, and many historians believe that Groundnuts were eaten by Pilgrims during their first winters in the New World. Its genus name, *Apios*, comes from the Greek word for "pear," referring to the shape of its underground tubers.



CLUSTER TYPE

Round



FLOWER TYPE

Irregular



LEAF TYPE

Compound



LEAF ATTACHMENT

Alternate



Aborted Buttercup

Ranunculus abortivus

Family: Buttercup (Ranunculaceae)

Height: 6–24" (15–60 cm)

Flower: a tall thin-stemmed plant with inconspicuous, green cone-shaped flowers, ¼" (.6 cm) long, with 5 extremely tiny, nearly "aborted" yellow petals

Leaf: round or kidney-shaped basal leaves, 1–1½" (2.5–4 cm) wide, with scalloped teeth; stem leaves (cauline) have 3–5 deep lobes and attach alternately on the stem; 1 leaf at each branching

Bloom: spring, summer

Cycle/Origin: annual, native

Habitat: moist woodlands, usually in the shade of large, mature deciduous trees

Range: throughout

Stan's Notes: Also called the Kidney-leaf Buttercup because of its kidney-shaped basal leaves. This atypical buttercup received the name "Aborted" because of its extremely tiny yellow flower petals (it is also known as the Small-flowered Buttercup for the same reason). The Aborted Buttercup's round basal leaves and tiny yellow petals help identify it. The flower lacks any nectar; instead, it rewards visiting insects with nutritious pollen.



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF TYPE

Simple Lobed



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Basal



Pineapple-weed

Matricaria discoidea

Family: Aster (Asteraceae)

Height: 3–8" (7.5–20 cm)

Flower: several (often many) small, green-to-yellow dome-shaped flowers, ¼" (.6 cm) tall

Leaf: individual leaves highly divided into thin, parsley-like leaves, ½–1" (1–2.5 cm) long

Bloom: summer, fall

Cycle/Origin: annual, native

Habitat: dry, sun, along roads, disturbed soils, farmyards

Range: throughout

Stan's Notes: A small inconspicuous plant that grows in disturbed soils along sidewalks, roads and gardens, the Pineapple-weed is so named because its flowers and leaves smell strongly of pineapple when crushed. It also makes a delicious yellow tea. A type of aster, it has a composite flower only of disk flowers, lacking petals (ray flowers). A close relative to Wild Chamomile (not shown), which has white daisy-like petals (ray flowers).



FLOWER TYPE

Composite



LEAF TYPE

Simple Lobed



LEAF ATTACHMENT

Alternate



fruit

Smooth Solomon's Seal

Polygonatum biflorum

Family: Asparagus (Asparagaceae)

Height: 1–3' (30–90 cm)

Flower: groups of 2–10, green, 6-petaled, bell-shaped flowers, ½–1" (1–2.5 cm) long, hang from short stalks, 1" (2.5 cm) long; flower stalks arise from a leaf base (axis)

Leaf: toothless, lance-shaped, stalkless leaves, 2–6" (5–15 cm) long, clasp an arching stem; conspicuous parallel veining makes the leaf look light green

Fruit: blue-to-black berries, ¼" (.6 cm) round

Bloom: spring

Cycle/Origin: perennial, native

Habitat: dry, shade, deciduous woods

Range: throughout

Stan's Notes: Also called True Solomon's Seal, this plant is distinguished by its long arching stems that grow up to 3' (90 cm) long. To remember the difference between True and False Solomon's Seal (pg. 313), use this rhyme: "Solomon's seal, to be real, must have flowers along its keel." Although the species name suggests two flowers, (*bi* means two; *florum* means flower) it can grow up to ten flowers per leaf axis. The plant grows from a large underground rootstock (rhizome). When its stalk breaks away, it leaves a distinctive round mark resembling the seal of King Solomon. Native Americans gathered its roots for food, but the roots may leave one's mouth tingling and numb.



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



FRUIT

Berry



Wild Sarsaparilla

Aralia nudicaulis

Family: Ginseng (Araliaceae)

Height: 1-2' (30-60 cm)

Flower: 3 distinct round clusters, 1-2" (2.5-5 cm) wide, made of greenish white flowers; individual flowers, 1/4" (.6 cm) long, have 5 tiny white petals

Leaf: 2 main stalks, each of which spreads into 3 leaf-stalks that grow 3-5 fine-toothed oval leaflets, 3-4" (7.5-10 cm) long, with pointed ends

Fruit: clusters of round purple-to-black berries, 1/8" (.3 cm), on a leafless stalk

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: dry, shade, coniferous woods, deciduous woods

Range: throughout

Stan's Notes: A perennial of coniferous and deciduous woodlands, just about every part of Wild Sarsaparilla comes in threes, including leaf stems, leaflets and flower stalks. Its horizontal underground roots are very aromatic and have been used as a substitute for sarsaparilla in root beer. Its clusters of purple-to-black berries are eaten by wildlife, and its leaves usually rise well above the flowers, often concealing them. The species name, *nudicaulis*, comes from the Latin *nudus* (naked) and *cauli* (stalk), and refers to the plant's leafless flower stalk.



CLUSTER TYPE

Round



FLOWER TYPE

Regular



LEAF TYPE

Compound



LEAF ATTACHMENT

Basal



FRUIT

Berry



fruit



Blue Cohosh

Caulophyllum thalictroides

Family: Barberry (Berberidaceae)

Height: 1–3' (30–90 cm)

Flower: a round cluster, 2" (5 cm) wide, of up to 20 greenish yellow flowers; individual flowers, 1/2" (1 cm) wide, have 6 pointed, petal-like sepals surrounding 6 smaller rounded petals

Leaf: a leaf is divided into several stalks and as many as 27 small leaflets; each leaflet, 1–3" (2.5–7.5 cm) long, has 3–5 pointed lobes; in spring, leaves and stems are often purplish blue in color

Fruit: dark blue berry on a thick stalk

Bloom: spring

Cycle/Origin: perennial, native

Habitat: wet, deciduous woods, shade

Range: throughout

Stan's Notes: A shade-loving plant of the deciduous forest, Blue Cohosh flowers range in color from greenish yellow to purplish brown. An erect, single main stem, purplish blue in color in spring, is covered with a light dusting of white powder that is easily wiped off. The poisonous blue berries sit atop a characteristically thickened stem and together they resemble a miniature light bulb. The leaves resemble those of Early Meadow Rue (pg. 87) or Tall Meadow Rue (pg. 309); hence the species name, *thalictroides*.



CLUSTER TYPE

Round



FLOWER TYPE

Regular



LEAF TYPE

Compound



LEAF ATTACHMENT

Alternate



FRUIT

Berry



Early Meadow Rue

Thalictrum dioicum

Family: Buttercup (Ranunculaceae)

Height: 1–3' (30–90 cm)

Flower: a loose, open, round cluster, 2–3" (5–7.5 cm) wide, of whitish green hanging flowers; individual flowers, 1/4" (.6 cm) wide, are made up of 4–5 petal-like sepals with showy, thread-like, yellow hanging flower parts (stamens)

Leaf: bluish green leaves that characteristically droop; each leaflet, 1/2" (1 cm) long, has 3 tooth-like lobes

Fruit: a single ribbed, egg-shaped, pod-like container, 1/8" (.3 cm) long

Bloom: spring

Cycle/Origin: perennial, native

Habitat: wet, shade, moist woods

Range: throughout

Stan's Notes: Sometimes a very difficult species to identify correctly, Early Meadow Rue is a shorter version of the Tall Meadow Rue (pg. 309). It grows in moist or wet depressions within woodlands, and has dark red-to-purple stems and droopy leaves. Male and female flowers grow on different plants, hence the species name, *dioicum*, which is Greek for “two houses” or “two plants.” Its flowers are wind pollinated, but are also visited by bees, butterflies and other insects. Often associated with Sugar Maple and Basswood trees.



CLUSTER TYPE

Round



FLOWER TYPE

Bell



LEAF TYPE

Twice Compound



LEAF ATTACHMENT

Alternate



FRUIT

Pod



fruit

Jack-in-the-pulpit

Arisaema triphyllum

Family: Arum (Araceae)

Height: 1–3' (30–90 cm)

Flower: an erect club (spadix or “Jack”), 2–3" (5–7.5 cm) long, sits inside a green or purplish hood (spathe or “pulpit”) at the top of a single stalk; base of the green club is lined with tiny separate male or female flowers, protected by the hood

Leaf: 1 or 2 (female plant has 2; male has 1) large, dull green, deep-veined, compound leaves, 5–12" (12.5–30 cm) long, made up of 3 leaflets

Fruit: cluster of shiny green berries that turn red in autumn

Bloom: spring

Cycle/Origin: perennial, native

Habitat: wet, shade, moist deciduous woods

Range: throughout

Stan's Notes: Also called Indian Turnip since Native Americans cooked its short, thickened, underground stem (corm) as food. However, no part of the plant is considered edible as it contains calcium oxalate crystals, which cause a burning sensation in the mouth. Its large three-part leaves are often confused with Large-flowered Trillium leaves (pg. 305), but Jack-in-the-pulpit has a deep vein that runs around the leaf's entire margin. If disturbed or affected by other stress, the female plant declines in vigor and may stop producing fruit.



CLUSTER TYPE

Spike



LEAF TYPE

Compound



LEAF ATTACHMENT

Alternate



FRUIT

Berry



Alumroot

Heuchera richardsonii

Family: Saxifrage (Saxifragaceae)

Height: 2–3' (60–90 cm)

Flower: a spike cluster, 2–4" (5–10 cm) tall, of green-to-brown bell flowers, 1/4" (.6 cm) wide, on a tall, thin leafless flower stalk; 5 petals form each bell-shaped flower

Leaf: maple-leaf-shaped basal leaves, 3–4" (7.5–10 cm) wide; hairy stalks; each leaf is coarsely toothed, hairy beneath, and made up of 3–5 lobes

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: dry, prairies, along roads, fields, open woods, rock outcroppings

Range: throughout

Stan's Notes: Alumroot grows in a wide variety of habitats, from prairies to woodlands to rock outcroppings. Its thick root was used as an astringent in folk medicine, hence the common name, "Alum." The genus name, *Heuchera*, is in honor of Johann von Heucher, an eighteenth-century German physician and botanist. A similar species (*H. americana*) grows in shaded woodlands. A member of the Saxifrage family, the name comes from two Latin words that mean "rock" and "break," referring to its habit of growing in rock outcroppings.



CLUSTER TYPE

Spike



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Basal



Orange Hawkweed

Hieracium aurantiacum

Family: Aster (Asteraceae)

Height: 1–2' (30–60 cm)

Flower: 2–10 bright orange flower heads, $\frac{3}{4}$ –1" (2–2.5 cm) wide, made up of 20–30 individual ray flowers, grow on a single stem; only a few open at a time

Leaf: simple, linear, toothless and stalkless, hair-covered leaves, 2–5" (5–12.5 cm) long, with rounded ends

Bloom: summer

Cycle/Origin: perennial, non-native

Habitat: dry, sun, fields, disturbed soils, pastures, along roads

Range: eastern edge of the state, especially along the North Shore of Lake Superior

Stan's Notes: Also called King-devil or Devil's Paintbrush, as its single stem is topped with a red-orange color, resembling a painter's brush. This plant originated in Eurasia as an alpine plant. Now naturalized in North America, it is sometimes considered a noxious weed. It grows in large patches, spreading by aboveground runners. This single-stemmed plant will hold up to ten flower heads that close at night and on cloudy days. After pollination, its flowering heads produce a dandelion-like silk to carry away its seeds. The name "Hawkweed" came from the mistaken belief that hawks ate the flowers to improve their vision. Seven species of hawkweed grow in Minnesota, and it is often mistaken for an orange daisy.



FLOWER TYPE

Composite



LEAF TYPE

Simple



LEAF ATTACHMENT

Basal



fruit

Spotted Touch-me-not

Impatiens capensis

Family: Touch-me-not (Balsaminaceae)

Height: 3–5' (90–150 cm)

Flower: orange flowers, 1" (2.5 cm) long, covered with red-dish brown spots; each flower has a large open mouth that leads to a long, thin, sharp-curved tube (spur)

Leaf: sharp-toothed, oval leaves, 1–3" (2.5–7.5 cm) long, alternate on short leafstalks, 1" (2.5 cm)

Fruit: thin, banana-shaped pod-like containers

Bloom: summer

Cycle/Origin: annual, native

Habitat: wet, shade, wetlands, along streams

Range: throughout

Stan's Notes: Also called Jewelweed because water droplets on its leaves shine like tiny jewels, the Spotted Touch-me-not is a tall annual plant of wet areas. Its stems are nearly translucent and contain a slippery juice that can be used to soothe the sting from nettles or Poison Ivy. Its long, thin, ripe seed pods explode when touched, throwing seeds in all directions. This action, combined with the dark spots on its flowers, provide the common name. A similar species, Jewelweed (*I. pallida*), also known as Pale Touch-me-not (pg. 351), has yellow flowers that are not as spotted. Scrape off the ripe seed's dark brown covering to discover a sky blue seed inside. An important nectar plant for hummingbirds.



FLOWER TYPE

Tube



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



FRUIT

Pod



fruit



Butterfly-weed

Asclepias tuberosa

Family: Dogbane (Apocynaceae)

Height: 1–2' (30–60 cm)

Flower: a large, flat-topped cluster, 2–3" (5–7.5 cm) wide, made of small, individual orange flowers, $\frac{3}{8}$ " (.9 cm) wide, each with downward-curved petals

Leaf: hairy toothless leaves, 2–6" (5–15 cm) long, widen at tip

Fruit: erect small clusters of narrow pods, 6" (15 cm) long, covered in fine hairs; pods contain large brown seeds with silken "parachutes" to carry away each seed

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: dry, sun, prairies, prefers sandy soils

Range: throughout, but mostly in the south and east

Stan's Notes: Found in prairies and along railroad beds growing in clumps, this true milkweed lacks milky sap; instead, its stem and leaves bleed clear sap. The species name, *tuberosa*, refers to its large taproot, which makes it nearly impossible to transplant (it can be grown from seed). Its single stems branch only near the top and its flower stalks harbor up to 25 individual flowers. Its flowers vary from all yellow to red, and its roots and stems have been used in folk medicine. A host plant for Gray Hairstreak and Monarch butterfly caterpillars.



CLUSTER TYPE

Flat



FLOWER TYPE

Irregular



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



FRUIT

Pod



Wood Lily

Lilium philadelphicum

Family: Lily (Liliaceae)

Height: 2–3' (60–90 cm)

Flower: large, upright, reddish orange flowers, 2–3" (5–7.5 cm) wide, with 6 petals (actually 3 petals and 3 sepals), all covered with dark purplish spots on a faint yellow background; 1 to 8 flowers per plant

Leaf: a whorl of 4–7 narrow, lance-shaped leaves, 2–3" (5–7.5 cm) long

Fruit: oblong pod, 2" (5 cm) long

Bloom: summer

Cycle/Origin: perennial, native

Habitat: wet, sun, prairies, dry deciduous and coniferous woods

Range: throughout

Stan's Notes: A showy perennial lily of the woodland habitats, the Wood Lily is the only upright-pointing lily. It is also called Prairie Lily because it grows on the prairie. It grows from a large, scaly underground bulb. Wood Lily is toxic to cats if ingested and shouldn't be grow in gardens visited by domestic cats. Also called Fire Lily, Western Red Lily, or Philadelphia Lily.



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Whorl



FRUIT

Pod



Turk's-cap Lily

Lilium superbum

Family: Lily (Liliaceae)

Height: 3–7' (90–210 cm)

Flower: large, dangling, orange-to-yellow flowers, 2–3" (5–7–5 cm) wide, with 6 backward-curving petals (actually 3 petals and 3 sepals), all covered with dark purplish spots and yellow centers that fade to orange; 1 to 8 flowers per plant

Leaf: a whorl of 4–6 narrow, lance-shaped leaves, 2–6" (5–15 cm) long

Fruit: oblong pod, 2" (5 cm) long

Bloom: summer

Cycle/Origin: perennial, native

Habitat: wet, sun, along roads in wet ditches, moist woods

Range: throughout

Stan's Notes: Also called Michigan Lily and once common along country roads, the Turk's-cap Lily has decreased due to the mowing and draining of ditches. A big showy lily that grows from a large, scaly underground bulb, it can grow up to 20 flowers per plant. The curled flower petals resemble a Turkish hat; hence the Turk's-cap Lily's common name. Native Americans once gathered its bulbs for food.



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Whorl



FRUIT

Pod



Four-o'clock

Mirabilis nyctaginea

Family: Four-o'clock (Nyctaginaceae)

Height: 1–3' (30–90 cm)

Flower: pink or purple flowers, 1/4–1/2" (.6–1 cm) wide, made up of 5 notched petals fused together at the base; small clusters of flowers are set against a green shield called a bract

Leaf: pairs of heart-shaped leaves, 2–4" (5–10 cm) long, opposite on the stem

Bloom: spring, summer, fall

Cycle/Origin: annual or perennial, depending on location, native

Habitat: wet or dry, sun or shade, woodlands or disturbed soils, highly adaptive plant

Range: throughout

Stan's Notes: A single-stemmed plant that branches only near the top into flower stalks, the Four-o'clock's flowers open late in the afternoon (hence its common name) and last until the following day, usually wilting by noon. Blooming overnight suggests that it might be pollinated by night-flying insects, such as moths. Its stems are four-sided and smooth, and it often grows along roads or in disturbed soils and gardens. Three species of Four-o'clock can be found in Minnesota. In southern Minnesota, this plant is a perennial. In northern Minnesota where the climate is harsher, it grows only as an annual. It is visited by Sphinx Moths (also known as Hummingbird Moths) for its nectar.



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



fruit



Rose Twisted-stalk

Streptopus lanceolatus

Family: Lily (Liliaceae)

Height: 1–3' (30–90 cm)

Flower: pink, bell-shaped flowers, 1/3" (.8 cm) long, with 6 petals hang on crooked, thread-like stalks from the main stem of the plant at each leaf joint (axil)

Leaf: lance-shaped leaves 2–3" (2.5–5 cm) long, with obvious parallel veins clasp the stem; edge of leaf (margin) fringed with minute hairs

Fruit: round red berry

Bloom: spring, summer

Cycle/Origin: perennial, native

Habitat: moist deciduous woods

Range: northern two-thirds of the state, from the Twin Cities north

Stan's Notes: A single arching stemmed plant of moist woodlands. The pink bell flowers produce bright red berries. Look for the characteristic twisted or zigzag stem. A single leaf attaches at each turn of the stem. The stem and the edges of the leaves are covered with minute hairs. The genus name breaks down to *Streptos* and *pous*, which are Greek for “twisted” and “foot” or “stalk”; hence its common name. The berries are mildly cathartic (cause diarrhea), so don't eat them.



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Alternate



LEAF ATTACHMENT

Clasping



FRUIT

Berry



Spreading Dogbane

Apocynum androsaemifolium

Family: Dogbane (Apocynaceae)

Height: 1–4' (30–120 cm)

Flower: groups of 2–10 tiny, pink-to-white, bell-shaped flowers, 1/3" (.8 cm) long; individual flowers are white with pink stripes; 5 petals fuse together to form the bell

Leaf: simple, oval, toothless leaves, 2–4" (5–10 cm) long, often with a wavy edge

Fruit: long thin pods, 3–8" (7.5–20 cm), that open along 1 side, revealing seeds attached to long tufts of white fuzz

Bloom: summer

Cycle/Origin: perennial, native

Habitat: dry, sun, along roads, edges of deciduous woods

Range: throughout

Stan's Notes: A tall perennial plant with a single main stem that branches out into many "spreading" stems. A close relative of the milkweed, it produces a thick, white, milky juice in its stem and leaves; this juice contains cardiac glycosides that cause hot flashes, rapid heartbeat and fatigue. Insects avoid this plant because of the poisonous juice. When dried and peeled, the stem makes a strong cord, which was once used by Native Americans for fishing and trapping. The same fibers are selectively used by orioles as nest-building material.



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



FRUIT

Pod



Twinflower

Linnaea borealis

Family: Honeysuckle (Linnaeaceae)

Height: 3–6" (7.5–15 cm)

Flower: a pair of small, pink, bell flowers, ½" (1 cm) long, each with 5 petals fused to form a bell; flowers hang from a single, thinly-forked stem

Leaf: small, round, toothless, evergreen leaves, ½" (1 cm) wide, paired low on the stem; leaves are light green and shiny

Bloom: summer

Cycle/Origin: perennial, native

Habitat: coniferous woods, bogs, rock outcroppings

Range: northern half of the state, especially in the Arrowhead Region and BWCAW

Stan's Notes: A low-growing evergreen plant, Twinflower forms patches by trailing stems along the ground and sending up short, thin flower stalks with a pair of leaves near the base and a pair or "twin set" of fragrant pink flowers. This common flower is found in northern coniferous forests throughout the world (circumpolar). Its genus name, *Linnaea*, is in honor of the father of botany, C. Linnaeus (1707–1778), who developed the modern way of naming plants and animals by using two names of usually Latin, but sometimes Greek, derivation—genus and species.



FLOWER TYPE

Bell



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Spring Beauty

Claytonia virginica

Family: Miner's Lettuce (Montiaceae)

Height: 6–10" (15–25 cm)

Flower: showy, upright flowers, ½–¾" (1–2 cm) wide, whitish with pink veining; each flower is made up of 5 petals with a slightly yellow-tinted center

Leaf: usually a single pair of oppositely attached grass-like leaves, 2–4" (5–10 cm) long, located about midway up the stem

Bloom: spring

Cycle/Origin: perennial, native

Habitat: wet, shade, deciduous woods, clearings in woods

Range: eastern half of the state excluding the Arrowhead Region

Stan's Notes: Spring Beauty often grows in large patches, reproducing from small, underground, potato-like tubers. The flower's pink veins act as signposts or runways to guide insects to the nectar. As they "taxi in," the insects brush against stamens, loading up on pollen, then off to another flower where they drop a few grains on the receptive stigma. This plant's numbers have been reduced because of the over-gathering of these tubers for food, so please don't dig them up. One of many in the Miner's Lettuce family, a group of about 230 species of plants worldwide, Spring Beauty is a very attractive flower that flowers early in spring, hence its common name. A variety can be purchased at your local garden center to grow in your garden.



FLOWER TYPE

Regular



LEAF TYPE

Simple



LEAF ATTACHMENT

Opposite



Crown Vetch

Securigera varia

Family: Pea or Bean (Fabaceae)

Height: 1–2' (30–60 cm); climbing vine

Flower: round clusters, 1" (2.5 cm) wide, of pink-and-white flowers; individual flowers $\frac{1}{4}$ – $\frac{1}{2}$ " (.6–1 cm) wide, are pea-like with pink upper petals (standard) and white side petals (wings)

Leaf: each leaf, 2–4" (5–10 cm) long, is made up of 12–25 round leaflets, $\frac{1}{2}$ – $\frac{3}{4}$ " (1–2 cm) wide

Fruit: flat pea-like pod, 1–2" (2.5–5 cm) long

Bloom: summer

Cycle/Origin: perennial, non-native

Habitat: dry, sun, along roads, open fields

Range: throughout

Stan's Notes: A plant introduced from Eurasia and North Africa, the Crown Vetch was first planted here to stop erosion along roads after construction. It grows in very large masses, 25–35' (7.6–10.7 m) across, by stems that creep across the ground. When in flower, the large patches bloom into an impressive display of pink-and-white flowers. Once planted, the Crown Vetch is hard to remove. Like most members of the Pea or Bean family, Crown Vetch can fix nitrogen from the air into the soil, thus improving soil fertility.



CLUSTER TYPE

Round



FLOWER TYPE

Irregular



LEAF TYPE

Compound



LEAF ATTACHMENT

Alternate



FRUIT

Pod

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<input type="checkbox"/> Spurge, Leafy	329	<input type="checkbox"/> Violet, Bird's-foot	45
<input type="checkbox"/> St. Johnswort, Common	341	<input type="checkbox"/> Violet, Canada	229
<input type="checkbox"/> Star Flower	205	<input type="checkbox"/> Violet, Downy Yellow	335
<input type="checkbox"/> Strawberry, Wild	225	<input type="checkbox"/> Virgin's Bower	307
<input type="checkbox"/> Sunflower, Common	403	<input type="checkbox"/> Waterleaf, Virginia	41
<input type="checkbox"/> Sunflower, False	385	<input type="checkbox"/> Wintergreen	203
<input type="checkbox"/> Sunflower, Woodland	389	<input type="checkbox"/> Wood Sorrel, Yellow	333
<input type="checkbox"/> Tansy, Common	391	<input type="checkbox"/> Yarrow, Common	301
<input type="checkbox"/> Thimbleweed	235		
<input type="checkbox"/> Thimbleweed, Long-fruited	283		
<input type="checkbox"/> Thistle, Bull	187		
<input type="checkbox"/> Thistle, Field	163		

GLOSSARY

Alternate: A type of leaf attachment where the leaves are singly and alternately attached along the stem, not paired or in whorls.

Annual: A plant that germinates, flowers and sets seed during a single growing season and returns the following year only from seed.

Anther: A part of the male flower that contains the pollen.

Axil: The angle formed between a stem and a leafstalk.

Axis: A point on the main stem from which lateral branches arise.

Basal: Leaves at the base of a plant, near the ground, usually grouped in a round rosette.

Bell flower: A single downward-hanging flower with petals fused together that form a bell-like shape.

Berry: A fleshy fruit containing one or many seeds (e.g., a grape or tomato).

Biennial: A plant that lives for only two years, and blooms in the second year.

Bract: A leaf-like structure usually found at the base of a flower, often appearing as a petal.

Bulb: A short, round, underground shoot used as a food storage system, common in the Onion family.

Calyx: The name for the collective group of all of the sepals of a flower.

Cauline: Leaves that attach to the stem distinctly above the ground, as opposed to basal leaves that attach near the ground.

Clasping: A type of leaf attachment where the leaf base partly surrounds the plant's main stem at the point of attachment; the leaf grasps the stem without a leafstalk.

Cluster: A group or collection of flowers or leaves.

Composite flower: A collection of tiny flowers that appear as one large flower. Usually made up of ray and disk flowers, pertaining to members of the Aster family (e.g., common daisy).

Compound leaf: A single leaf composed of a central stalk and two or more leaflets.

Coniferous: Plants that do not shed their leaves each autumn (e.g., pine and spruce).

Corm: A short, thickened, vertical, underground stem used to store food.

Deciduous: Plants that shed their leaves each autumn (e.g., maples and oaks).

Disk flower: The small tubular flowers in the central part of a composite flower in the Aster family, such as the center of a daisy.

Ephemeral: Lasting for only a short time each spring.

Flat cluster: A group of flowers that form a flat-topped structure, which enables insects to easily land and thereby complete pollination; exhibited by plants of the Carrot family (e.g., Queen Anne's Lace).

Gland: A tiny structure, usually secreting oil or nectar, sometimes found on leaves, stems, stalks and flowers, such as in Gumweed.

Irregular flower: A flower that does not have the typical round shape, usually made up of 5 or more petals that are fused together in an irregular shape (e.g., pea or bean flower).

Leaflet: One of many leaf-like parts of a compound leaf. A compound leaf is made up of two or more leaflets.

Lip: The projection of a flower petal, or the "odd" petal, such as the large inflated petal of an orchid; may also refer to the lobes of a petal.

Lobed: A simple leaf with one or more indentations (sinuses) along its edge that do not reach the center or base of the leaf, (e.g., dandelion or oak leaf).

Margin: The edge of a leaf.

Mycorrhiza: A mutually beneficial relationship between a fungus and the root system of a plant.

Node: The place or point of origin on a stem where leaves attach (or have been attached).

Opposite leaves: A type of leaf attachment where the leaves are situated directly across the stem from each other.

Palmate: A type of compound leaf where three or more leaflets arise from a common central point which is at the end of a leafstalk, such as in Wild Lupine.

Parasitic: A plant or fungus that derives its food or water chiefly from another plant, to the detriment of the host plant.

Perennial: A plant that lives from several to many seasons, returning each year from its roots.

Perfoliate: A type of leaf attachment where the base of a leaf is connected around the main stem so that the stem appears to pass through the stalkless leaf (e.g., Boneset).

Petal: A basic flower part, usually brightly colored, serving to attract pollinating insects.

Pistil: The female part of a flower made up of an ovary, style and stigma, often in the center of a flower.

Pod: A dry fruit that contains many seeds (e.g., a pea pod).

Pollination: The transfer of pollen from the male anther to the female stigma, resulting in the production of seeds.

Ray flowers: One of many individual outer flowers of a composite flower in the Aster family (e.g., a single petal of a daisy flower).

Regular flower: A flower with 3–20 typical petals arranged in a circle.

Rhizome: A creeping, underground, horizontal stem.

Rosette: A cluster of leaves arranged in a circle, often at the base of the plant, as in Common Mullein.

Round cluster: A group of many flowers that form a round structure, giving the appearance of one large flower.

Saprophytic: A plant or fungus that lives on dead organic (plant) matter, neither parasitic nor making its own food (e.g., Indian Pipe).

Seed head: A group or cluster of seeds.

Sepal: A member of the outermost set of petals of a flower, typically green or leafy but often colored and resembling a petal (e.g., lily).

- Sheath:** A tubular leaf-like structure that surrounds the stem (e.g., Spotted Coralroot).
- Simple leaf:** A single leaf with an undivided or unlobed edge.
- Spadix:** A highly specialized, thickened spike with many small flowers that are crowded together (e.g., Jack-in-the-pulpit). See spathe.
- Spathe:** A large, usually solitary, petal-like bract often enclosing a group of flowers, such as a spadix (e.g., Jack-in-the-pulpit). See spadix.
- Spike cluster:** Many flowers on a single spike-like stem, giving the appearance of one large flower.
- Spur:** A hollow, tube-like appendage of a flower, usually where nectar is located (e.g., Jewelweed).
- Stamen:** Collectively, the male parts of a flower consisting of an anther and filament.
- Stem leaf:** Any leaf that is found along a plant's stem, as opposed to a leaf at the base of a plant (basal). See cauline.
- Stigma:** The female part of the flower that receives the pollen.
- Stipules:** A pair of basal appendages of a leaf, not attached to the leaf blade.
- Stolon:** A creeping stem on the surface of ground (e.g., Creeping Charlie).
- Toothed:** The jagged or serrated edge of a leaf, resembling the teeth of a saw.
- Tube flower:** Similar to a bell flower with fused petals that form a tube, usually turned upward, not hanging downward.
- Whorled:** A circle or ring of three or more similar leaves, stems or flowers originating from a common point.
- Wing:** A flat extension at the base of a leaf or edge of a leafstalk, sometimes extending down the stem of the plant.
- Woody:** Stems that are hard and brown, usually with bark; not a soft green stem.

ABOUT THE AUTHOR

Naturalist, wildlife photographer and writer Stan Tekiela is the originator of the popular state-specific field guide series that includes *Birds of Minnesota Field Guide*. Stan has authored more than 190 educational books, including field guides, quick guides, nature books, children's books, playing cards and more, presenting many species of animals and plants.

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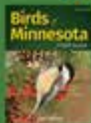
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About the Author

Naturalist Stan Tekiela is an award-winning wild-life photographer and the author of many popular state-specific field guides. He has written educational books about wildlife, including children's books, quick guides and more, presenting birds, mammals, reptiles, amphibians, trees, wildflowers and cacti.

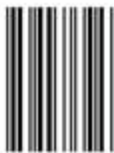
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