101 Wildflowers of Glacier National Park



BEAR GRASS AT MANY GLACIER (COURTESY GREAT NORTHERN RAILWAY

Special Bulletin No. 5
GLACIER NATURAL HISTORY ASSOCIATION

Price 50 Cents

101 WILDFLOWERS OF GLACIER NATIONAL PARK

By

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Illustrations by Wenonah Sharpe and Patricia Fletcher

INTRODUCTION

PURPOSE

This booklet has been prepared in the light of some experience with the wants of visitors, who enjoy and seek to know the flowers, but claim little botanical knowledge. On this basis it may be termed a "popular publication" in that it seeks to simplify terminology and classifications; yet the work is technically accurate. Further, this follows the practice of the National Park Service of using the common and scientific names found in **Standardized Plant Names**, a publication prepared by the American Joint Committee on Horticultural Nomenclature. When the local common name differs widely from the Standardized Plant Name, it follows in brackets.

ARRANGEMENT

The average park visitor is seldom able to recognize a flower by its family characteristics. Generally he is satisfied in acquiring only the name of the flower, and possibly its family name. He is content to leave the natural relationship of the families to those who dwell in such mysteries. For this reason the arrangement of the flowers herein is not by families but by their more obvious trait, color.

When the color of a plant is determined one need only refer to the corresponding section of the booklet to find the illustration of the flower in question. In most instances it is the flower and leaves that are illustrated. Often the fruit is the more conspicuous, or more commonly seen feature of the plant, and if so this will be illustrated. In this case it will be grouped according to the color of the fruit when ripe, rather than the color of the flower, however a footnote will be found on the flower color page. All illustrations were drawn from live specimens during the summer of 1951. Each sketch is marked with a fraction which gives the relation of the sketch to the actual size of the plant.

^{*} Editor's Note—Mr. Sharpe has worked as Ranger Naturalists in Glacier National Park for three summers, starting in 1949. The preparation of the text and illustrations for this publication represents many hours of off-duty time and effort contributed by him during the summer and fall of 1951.

PLANTS OF GLACIER NATIONAL PARK

Many plants will be discovered in Glacier that are not mentioned here, since nearly a thousand inhabit this area. The 101 flowering plants illustrated and described here are, to the best of the author's knowledge, the 101 most common and representative. The majority are handsome and showy. Many possess other virtues, and thus were sought by the Indians of the region for food and medicinal purposes. One wonders why the Indians did not live forever, since they seemed to have a plant remedy for every ailment. Due to limited space and the park regulation forbidding the picking of wildflowers, many of these medicinal plants are described but only a few are mentioned as being of value for this purpose. Still others provide the necessary food for park wildlife; some are noted for their delicious fruit, fortunately not entering into the above mentioned regulation.

DISTRIBUTION OF PLANTS

Reference to various zones will be found throughout the booklet. The average person knows that plants are affected in some way by temperature and moisture. Plants adapted to the same conditions live together in a happy association, but are restricted to their own neighborhood or zone. In a given area, such as Glacier National Park, one finds that with a change in altitude there is a change of moisture and temperature. These are the "conditions" to which plants must adapt themselves, therefor as the conditions change so must the plants. There has been a scientific division made of such areas, called "Life Zones;" four of which are found in the park. These are the uppermost four of the seven recognized zones. Beginning with the lowest they are properly known as the Transition, Canadian, Hudsonian, and Arctic-Alpine Zones.

In order that the Transition Zone might be recognized by the casual observer it has been renamed herein the "Prairie Zone." This calls to mind its resemblance to the plains east of the park. For the most part this zone is treeless or nearly so except for the aspen groves on the east side, and to a lesser extent, the stands of Ponderosa pine along the park's western boundary. The Prairie Zone is best seen along Lake Sherburne, Lower St. Mary Lake and St. Mary Lake up to Rising Sun.

The Canadian Zone, the next highest, has the widest representation in the park and is easily recognized by the characteristic dense forests. The McDonald Valley and most of the St. Mary Valley typify this zone. Hereafter it will be referred to as the "Forest Zone."

Above the Forest Zone is a belt of open meadows intermingled with dwarfed and windswept trees. Logan Pass is a well-known example of this, the Hudsonian or "Scrub-Forest Zone." The uppermost zone, the Arctic-Alpine Zone, is unique in that it is treeless, as this is the land above timberline. The particular adaptation of the flowering plants of this zone is their ability to survive under adverse weather conditions and the short blooming season. The crowns of nearly all the park's mountains lie in the "Alpine Zone," as it is called in this booklet. Excellent information on the trees of the forested zones may be obtained by referring to "Trees and Forests of Glacier National Park" by Donald H. Robinson. Further information on park flora is available in Paul C. Standley's "Plants of Glacier National Park."

In addition to the above altitudinal divisions, the park is bisected north and south by the Continental Divide. Again limitations to plant life are encountered; the west side receives more rainfall and in general has a milder climate than the more windy, drier east side. Many of the park's wildflowers are limited to one side only; that side or slope more favorable to their growth. Others have successfully adapted themselves to either slope.

It is the author's hope that this departure from the usual procedure, in presenting a flower publication classified by colors rather than families, will prove of assistance to the park visitor.

ACKNOWLEDGMENTS

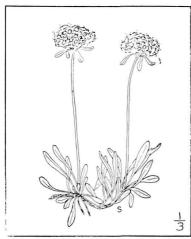
I wish to express my appreciation to Chief Park Naturalist Ed Beatty and Park Naturalist Don Robinson, who gave their encouragement and assistance in the groundwork of this booklet. It is a pleasure to acknowledge the aid received from Associate Professor C. Frank Brockman of the University of Washington College of Forestry, for his suggestions while reviewing the manuscript. Special credit is also due Dr. C. Leo Hitchcock, Botany Department Head, University of Washington, who examined the completed illustrations and Dr. Belle Stevens, Science Department, St. Nickolas School, Seattle, who, while on a visit to Glacier critically examined each illustration, giving many valuable suggestions. Without the inspiring and consistent help of my wife, Wenonah Sharpe, the illustrations and field information would never have been completed. Thanks is also due to Miss Patricia Fletcher, for her assistance in completing several drawings.

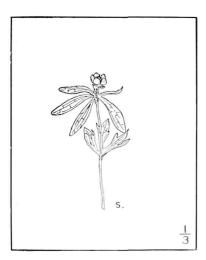
PLANT GROUPING ACCORDING TO COLOR OF FLOWER OR FRUIT

Section	Page	Section	Page
Black	36	Purple	29
Blue	34	Purplish-blue	33
Green	10	Purplish-pink	27
Greenish-white	11	Red	21
Greenish-yellow	10	White	12
Pink	24	Yellow	4

(Complete Index Pages 39-40)







LAMBSTONGUE FAWNLILY

(Glacier Lily)
Erythronium grandiflorum

LILY FAMILY

Flowers yellow, nodding, usually one per stem, occasionally more. Leaves 6 to 10 inches long, 2 or 3 in a whorl from the base. Fruit a 3-angled pod 1½ inches long, found at the terminus of an 8 to 18 inch stem. Forms dense, short-lived fields of yellow up to the very edges of receding snowbanks in the Scrub-Forest and Alpine Zones. Overturned soil at Cracker Lake and Logan Pass often indicates bears have been digging for the choice bulbs.

PIPER ERIOGONUM (Sulphur Plant) Eriogonum piperi BUCKWHEAT FAMILY

Flowers bright yellow, tinged with red in late season, massed to form an attractive head at the top of each 4 to 12 inch stem. Leaves paddle-shaped, basal, green above and silvery below, usually growing in spreading clumps in the dry rocky soils of the Forest and Scrub-Forest Zones, favoring the east side. Blooms during late July and early August. Common around Two Medicine and Many Glacier. Very showy near the second set of switchbacks on the Grinnell Glacier trail.

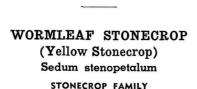
ALPINE BUTTERCUP Ranunculus alpeophilus BUTTERCUP FAMILY

Flowers yellow, small and waxy, petals 5. Leaves deeply lobed, those at the base both lobed and toothed. Plant 2 to 10 inches tall, but in the Alpine Zone where it is most commonly found, it seldom exceeds four inches in height. As do most park buttercups, it inhabits open moist meadows, but is occasionally found in rocky areas where sufficient moisture prevails. Seen during August on the trail from Logan Pass to Hidden Lake, modestly hidden among the more showy flowers of the region.

YELLOW COLUMBINE Aquilegia flavescens

BUTTERCUP FAMILY

Flowers yellow, large and conspicuous, usually nodding, 5 petal-like sepals present; the 5 true petals shaped like cornucopias, each about 1 inch long. Leaves mostly basal, divided into 3 deeply lobed ½ to 1½ inch long leaflets. Stems branched, averaging 16 inches tall, several flowered. Common in the Forest and Scrub-Forest Zones, especially on the trails to Iceberg Lake, Grinnell Glacier, and Sperry Chalet during July. The rare blue Jones columbine growing only 4 inches tall, is found at Siyeh Glacier and Siyeh Pass.

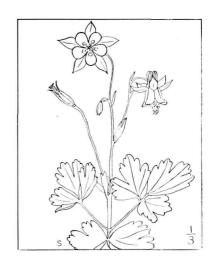


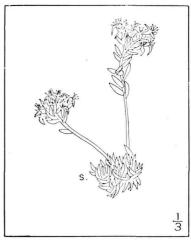
Flowers golden yellow, grouped at the summit of a 3 to 8 inch stem; petals 5. Leaves thick, fleshy, less than ½ inch long, many clustered at the base. A widely distributed plant in the Forest and Scrub-Forest Zones. One of the few plants of the park with succulent leaves, providing sufficient moisture to enable it to live in the open dry regions. A less common variety, the red stonecrop, having flat, fleshy leaves, is found in similar habitats.

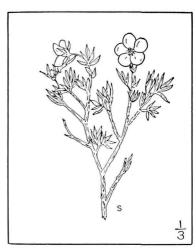
BUSH CINQUEFOIL (Shrubby Cinquefoil) Potentilla fruticosa

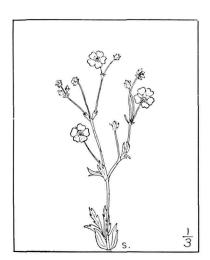
ROSE FAMILY

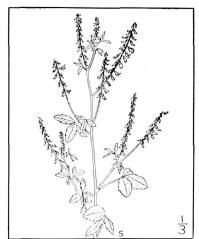
Flowers bright yellow, nearly 1 inch in diameter; petals 5; lasting all season. Leaves composed of 3 to 7 hairy leaflets, up to ½ inch long. Grows from 1 to 3 feet high, its shrubby form a distinguishing characteristic serving to separate it from the many cinquefoils found in Glacier. Common everywhere in the open areas of the east side from the Prairie to the Alpine Zones. Commences blooming in early July in the Many Glacier, St. Mary and Two Medicine areas.

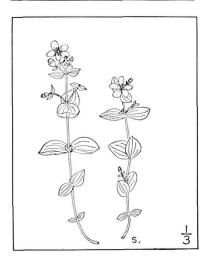












BLUELEAF CINQUEFOIL

Potentilla glaucophylla

ROSE FAMILY

Flowers yellow, ½ to ¾ inch wide; petals 5. Leaves mainly basal, composed of 5 leaflets, margins coarsely toothed. Stems slender, 3 to 12 inches high, occasionally branched near the top. Bloom often mistaken for that of the buttercup, however the latter plant has rounded and glossy petals, serving best to distinguish it from the cinquefoil. Fairly common in the Alpine Zone meadows, blooming in late July and early August. Seen on the way to both Granite Park and Hidden Lake from Logan Pass.

YELLOW SWEETCLOVER Melilotus officinglis

PEA FAMILY

Flowers yellow, ¼ inch long, from 20 to 60 borne on opposite sides of the stems. Leaves composed of 3 leaflets, ½ to ¾ inch long, margins toothed. Plant 1 to 5 feet tall, loosely branched. Common in the Prairie and Forest Zones during July, August and September. A similar white variety of sweet clover is found in company with the yellow along all park highways, from which they seldom stray, seeming to prefer the busy roadside to the deep woods.

SCOULER ST. JOHNSWORT Hypericum scouleri

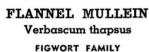
ST. JOHNSWORT FAMILY

Flowers yellow, ½ to ¾ inch broad, clustered at the top of the stem pollen bearing stamens numerous; petals 5. Leaves opposite, about ¾ inch long, margins smooth. Grows from 4 to 10 inches tall; found generally in open meadows in the Scrub-Forest and Alpine Zones. Easily recognized by the deep red tinging on the closed buds. Prevalent at Logan Pass, Sperry Chalet, Granite Park and Iceberg Lake. Commences blooming around June 24, the day consecrated to St. John, giving rise to the ancient common name.

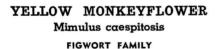
PIONEER VIOLET (Tall Yellow Violet) Viola alabella

VIOLET FAMILY

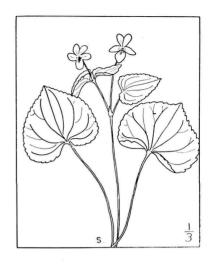
Flowers bright vellow. ½ to ¾ inch across: petals 5, veined with purple, the lowest petal larger and spurred at the back. Leaves heartshaped, about 2½ inches broad, margins toothed. Stems smooth, branching, 4 to 12 inches tall. Found most commonly in the Forest and Scrub-Forest Zones in moist woods or boggy meadows, on both sides of Glacier. Seen around Avalanche Campground and on the Avalanche Self-Guiding Nature Trail.

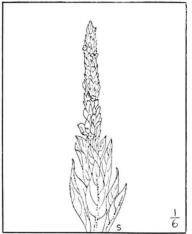


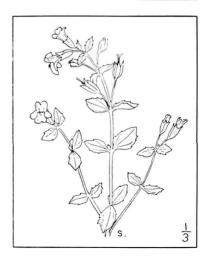
Flowers yellow, 1/4 to 1/2 inch broad; petals 5, borne on a flowering spike 3 inches to 3 feet long. Leaves woolly, thick, 3 to 12 inches in length, growing near base of plant. Stem stout, also woolly, 1 to 5 feet tall, terminating in an elongated cluster of buds, flowers and seeds. Plants appear as standing clubs along the highways near the east and west entrances. Blooms a few flowers at a time during August and September. Most no ticeable after other highway flowers have disappeared.

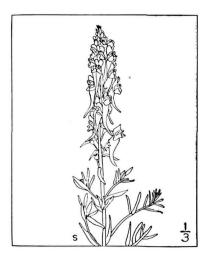


Flowers bright yellow, tubular, about 3/4 inch broad, throat bearded; growing from the axils of the leaves. Leaves opposite, less than I inch long, margins toothed. Seldom grows more than 6 inches tall. Much less abundant than the red monkeyflower, preferring wet places mainly in the Scrub-Forest Zone of Glacier. Admirably displayed during early August at a welcome drinking spot on the way to Grinnell Glacier, just before a bend to the left in the trail. The "monkey face" is more apparent when flower is held upside down.













BUTTER-AND-EGGS TOADFLAX

Linaria vulgaris

FIGWORT FAMILY

Flowers yellow with orange centers; about 1 inch long, spurred, in a cluster along terminus of stem. Leaves narrow, ½ to 1½ inches long. Stems slender, erect, growing from 6 to 20 inches tall. Found mostly in the Prairie and Forest Zones, lasting all season. At West Glacier often blooms from mid-June to mid-September. Abundant along highway ¾ mile east of Many Glacier Hotel, and a large clump may be seen on the trail to Iceberg Lake during July. Visitors often remark on resemblance to snapdragons.

NOVEMBER GOLDENROD

Solidago gigantea leiophylla

COMPOSITE FAMILY

Flowers yellow, small and numerous, borne in dense, feathery, pyramid-shaped clusters. Leaves alternate 2 to 4 inches long, margins toothed. Stems erect and slender, 12 to 18 inches high. Inhabits the Prairie and Forest Zones, blooming auring July and August and often into late September. Very common along the highway from West Glacier to Lake McDonald Hotel. This and similar goldenrods are found at Sun Point, Many Glacier, and Two Medicine. An alpine variety is seen at Logan Pass during August.

ARROWLEAF BALSAMROOT

Balsamorhiza sagittata

COMPOSITE FAMILY

Flowers yellow, forming a large head with 10 to 18 rays; 2 to 3 inches in diameter, centers a darker yellow. Leaves arrow-head shaped, 3 to 8 inches long, covered with silvery down, greener above than below; mostly basal, except for 1 or 2 small stem leaves. Stems erect, 1 to 2 feet tall, bearing the flower heads at their terminus. Grows in large thick-rooted clumps in the open dry areas of the Prairie and Forest Zones on the east side of the park.

COMMON PERENNIAL GAILLARDIA

(Brown-eyed Susan) Gaillardia aristata

COMPOSITE FAMILY

Flowers yellow, centers purplish-brown, the yellow rays approximately 12 in number, each having three points. Flower head 2 to 2½ inches in diameter. Leaves variable in shape, deeply lobed at the base of the plant, those higher only toothed. Stems finely haired, average 14 inches in height, supporting a single flower head. Grows at all elevations on the east side of the park in open dry habitats. Blooms in early July at low elevations such as Many Glacier, and into August on the higher trails.

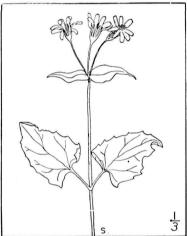


Flowers yellow, rays about a dozen in number, each toothed at apex. Flower heads are commonly 3 in number, the central one blooming first. Leaves opposite, more or less heart-shaped, about 2 inches long. A meadow flower of the Scrub-Forest and Alpine Zones, associating with the showy fleabane and scarlet paintedcup. Very common at Logan Pass during late July and most of August. Other arnicas are found along the east side trails at lower elevations, especially on the Grinnell Lake, Trick Falls, and Twin Falls trails.

ARROWLEAF GROUNDSEL (Arrowhead Ragwort) Senecio triangularis COMPOSITE FAMILY

Flowers yellow, arranged at top of plant in numerous heads, each about ½ inch across. Leaves alternate, 2 to 6 inches long, margins sharply toothed; their triangular or arrowheadshape being an excellent recognition feature. Often grows 5 feet tall in dense forests, but much shorter in the open, and at higher elevations. One of the most common wildflowers on the trail to Grinnell Lake throughout most of July and August. Also found near Avalanche Lake in early July, or Logan Pass during late July.

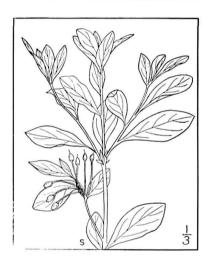






^{*} See also BEARBERRY HONEYSUCKLE and BLACKBEAD ELDER — Page 37.

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GREENISH-YELLOW SECTION

AMERICAN FALSEHELLEBORE

Veratrum viride

LILY FAMILY

Flowers greenish-yellow, 6-parted, inconspicuous, growing on a long terminal stalk; not often seen in bloom. Leaves conspicuous, long and wide, prominently parallel-veined, folded lengthwise. The flower stalk is 2 to 6 feet tall. Grows at all elevations on either side of the park, generally preferring moist soils. Handsome for its leaves, the plant seldom fails to arouse the interest of park visitors as it is seen by nearly all who travel through Glacier. A fact unknown to many: the leaves and roots are poisonous if eaten.

SMOOTH MENZIESIA (Fool's Huckleberry) Menziesia alabella

HEATH FAMILY

Flowers greenish-yellow, ¼ inch long, bell-shaped, stalked. Leaves pale green, 1 to 2 inches long, giving off a skunk-like odor when crushed; not evergreen as are most members of this family. Fruit a small, hard capsule, not edible. Grows from 3 to 5 feet high, its leaves and general form resembling the big whortleberry or "huckleberry." Leaves poisonous to the browsing animals, but not toxic unless large quantities are consumed. Common everywhere in the Forest Zone.

GREEN SECTION

LYALL NETTLE
(Stinging Nettle)
Urtica lyalli
NETTLE FAMILY

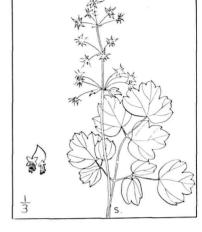
Flowers green, inconspicuous, borne in loose clusters from the axils of the leaves. Leaves opposite, up to 6 inches long, margins coarsely toothed. Stems square, 2 to 5 feet tall. Grows everywhere in the park; most abundant in the moist areas of the Forest Zone. Both leaves and stems armed with numerous tiny hairs which cause a stinging sensation when touched, similar to that of a bee sting; apparently caused by the same (formic) acid. The stem fibers produce a fine linen; the roots a fine food.

GREEN SECTION

WESTERN MEADOWRUE Thalictrum occidentale

BUTTERCUP FAMILY

Flowers green or greenish-white, of two kinds, each growing on separate plants. The pistillate (female) flower is an upright cluster of bristly structures called "achenes." The inset shows those of the staminate (male) flower, composed of attractive little tassels growing from 4 petal-like sepals. Leaves compounded in threes, outer margins notched. A common plant everywhere in the moist Forest Zone, blcoming from June to early August. Visitors commonly notice the resemblance of the leaves to both the maidenhair fern and the yellow columbine.



WILD SARSAPARILLA

Aralia nudicaulis

GINSENG FAMILY

Flowers greenish, small, growing in 2 to 7 rounded, umbrella-like heads. One leaf to α plant, divided in three, each division having 3 to 5 finely toothed leaflets, hiding the flowers from view. The leaves, most characteristic part of the plant, form an attractive pattern about 12 to 15 inches above the forest floor. Fruit α purplishblack berry $\frac{1}{4}$ inch in diameter, clustered in α round head similar to the flowers; not edible. Found in abundance in the forests near Lake McDonald Hotel.



GREENISH-WHITE SECTION

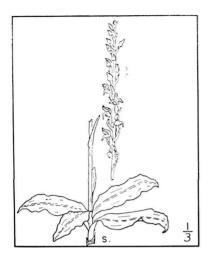
MOUNTAIN DEATHCAMAS

Zigadenus elegans

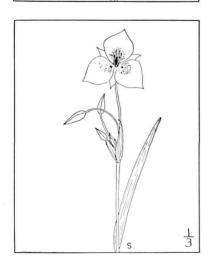
LILY FAMILY

Flowers greenish-white, ½ inch wide, 6-parted, dotted on the underside. Leaves grass-like, growing up to 14 inches tall coated lightly with a powdery "bloom." Stems erect, 10 to 20 inches tall. Most commonly found in moist soils of the east side Scrub-Forest Zone; occasionally grows at lower elevations. Seen along the trail near the Hidden Lake viewpoint in late July and early August. Seen also on the Iceberg Lake and Garden Wall trails. Poisonous to horses and other stock.









GREENISH-WHITE SECTION *

WESTERN RATTLESNAKE-PLANTAIN Goodyera decipiens

ORCHID FAMILY

Flowers greenish-white, small, compact, along the erect stem. Leaves evergreen, 3 to 4 inches long; 3 to 8 in number, forming a rosette at the base of the plant. A light stripe down the center of the leaves serves as a distinguishing characteristic for identification. Grows from 6 to 15 inches tall in the deep woods of the Forest Zone. Seen on the Avalanche Lake, Fish Lake, and Sperry Chalet trails, blooming in late July and early August. It is also found around St. Mary Lake.

WHITE SECTION

COMMON BEARGRASS

Xerophyllum tenax

LILY FAMILY

Flowers white, each about ½ inch wide, growing on a slender stalk, closely clustered into a magnificent head. Stem sturdy, leafy, growing up to 5 feet tall. Leaves basal, 1 to 2 feet long, very narrow, greener above than below, coarse edged, and in dense clumps. Seen covering acres of open, dry forests and slopes throughout the park. Blooms in June and early July at low elevations and into August in higher regions. Showy and prevalent this plant is considered the park flower. (See cover).

NORTHWESTERN MARIPOSA Calochortus elegans

LILY FAMILY

Flowers white, about 2 inches across, the 3 petals looking skyward. Petals usually 1 inch long, nearly as wide, hairy inside with a black dot near the base. Leaves narrow, growing up to 8 inches long. Stems 6 to 16 inches tall, its several blooms flowering one at a time. Found scattered in open areas throughout the park in the Forest and Scrub-Forest Zones during July. "Mariposa" is Spanish for "butterfly" and this flower is commonly referred to as the butterfly lily.

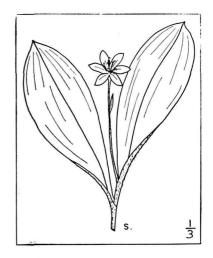
^{*} See also CLASPLEAF TWISTEDSTALK & RED BANEBERRY page 21; and AMERICAN DEVILSCLUB — page 22.

QUEENCUP BEADLILY

Clintonia uniflora

LILY FAMILY

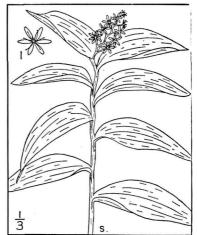
Flowers pure white, less than 1½ inches in diameter, generally one to a stem; petals and sepals similar, 3 each, resembling 6 white petals. Stems hairy, 4 to 5 inches long. Leaves basal, 6 inches long, varying in number but most commonly found in twos; color a dark glossy green. The fruit is a smooth blue berry. In July this delicate plant lights up the gloom beneath the alpine fir and Engelmann spruce forests at Many Glacier and Two Medicine. On the west side it may be seen in the McDonald Valley.



STARRY SOLOMONPLUME (Star Solomonseal) Smilacing stellata

LILY FAMILY

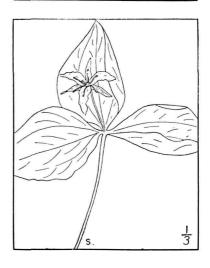
Flowers white, small and star-like, 3 to 10 terminally located on a zigzag stem. Leaves alternate, 3 to 4 inches long, clasping the stem at their base. Fruit a greenish berry with 3 deep purple stripes, appearing in late August. Blooms in abundance in wooded areas, mostly on the west side in the Forest Zone. Seen in Avalanche Campground and on the Trick Falls Self-Guiding Nature trail in June and early July. Other solomonseals are found elsewhere in the park.

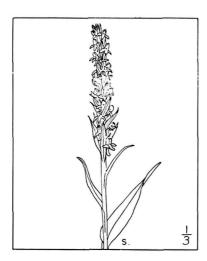


PACIFIC TRILLIUM (Wake Robin) Trillium ovatum

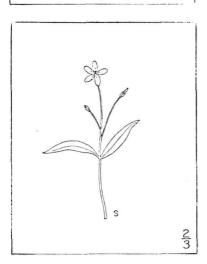
LILY FAMILY

Flowers white, shading to purple with age; petals 3, 1 to 3 inches in length. Leaves broad, 3-whorled, 4 to 6 inches long. Stems range in height from 8 to 20 inches. Found on the west side in the Forest Zone, especially near the beginning of the moist forested trail to Avalanche Lake. Blooms until the end of June, often into early July. Very large specimens are found in the rich soils bordering the Avalanche Self-Guiding Nature trail.









WHITE BOG-ORCHID Habenaria dilatata

ORCHID FAMILY

Flowers white, ½ inch long, numerous, sweet-scented, each with a slender sharply pointed spur. Leaves alternate narrow and pointed, 2 to 8 inches long. Stems hollow, averaging 18 inches tall. A denizen of marshy situations in the Forest Zone on either side of the park. Blooms during July and August. Commonly found growing with the green bog-orchid. Both may be seen along the boardwalk at the head of Lake Josephine. The white is occasionally seen in wet places beside the highway along Lake McDonald.

SUBALPINE ERIOGONUM

(Umbrella Plant)

Eriogonum subalpinum

BUCKWHEAT FAMILY

Flowers white, numerous, arranged in an umbrella-like head. Leaves basal, paddle-shaped, I to 2 inches long, green above, hairy white below, turning red with age. Stems 6 to 12 inches tall, dividing above a series of leaves into about 12 short spokes. Found in dry soils at all elevations; the profusion of leaves forming a dense mat. Resembles both the smaller silver plant and the yellow sulphur plant. Eaten by sheep and goats. Blooms in July and early August.

LANCELEAF SPRINGBEAUTY

Claytonia lanceolata

PURSLANE FAMILY

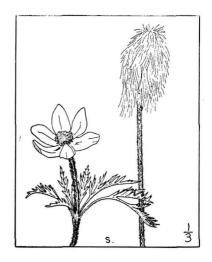
Flowers white with delicate pink veins; petals 5; often several blooms per plant but usually only one appearing at a time. Leaves opposite, a single pair, each 1 to 2 inches long, growing half way up on a 2 to 4 inch stem. Found in the meadows of the Scrub-Forest and Alpine Zones throughout Glacier. Seen on the trail from Logan Pass to Hidden Lake in late July. A good plant to know if lost since its bulb is edible, resembling the chestnut in taste.

WESTERN PASQUEFLOWER

Anemone occidentalis

BUTTERCUP FAMILY

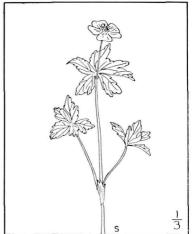
Flowers large, 2 to 2½ inches across, the white petal-like sepals conspicuous, usually 6 in number. Stem hairy, about 4 inches high when plant in flower; continues to grow after blooming, supporting an attractive greenish-yellow, silky, fruiting head, 12 to 24 inches above ground. Leaves lobed into narrow divisions. Common in the Scrub-Forest and Alpine Zones, blooming soon after the snow melts. Fruit showy in later July and August. Seen on the Orientation Circle at Logan Pass and near the Grinnell Glacier hitch rack.



WHITE GLOBEFLOWER Trollius albiflorus

BUTTERCUP FAMILY

Flowers off-white, an inch in diameter, the 5 petal-like sepals turned skyward in an attractive and characteristic manner. Stem thin, 8 to 20 inches tall supporting one flower, occasionally two. Leaves deeply lobed, 1 to $1\frac{1}{2}$ inches broad. A common plant of the Scrub-Forest and Alpine Zones, often found hugging the very edges of snow banks as they melt. A fine display can be found in late July and August near a pond on the trail to Hidden Lake from Logan Pass.

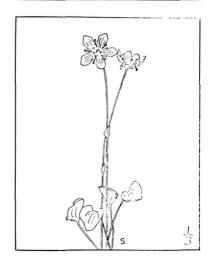


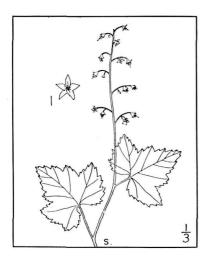
ROCKY MOUNTAIN PARNASSIA

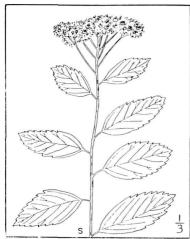
Parnassia fimbriata

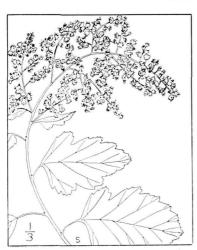
SAXIFRAGE FAMILY

Flowers white, about 1 inch across, the 5 petals lightly veined with green, and fringed near the base. Leaves kidney shaped, 1 inch long, glossy and smooth-edged, mostly basal on a 1 to 4 inch stem. Flower stems grow from 4 to 14 inches tall, each with a tiny leaf part way up. Occasionally occurs in clumps, and may be observed along stream banks and in moist places in Glacier. Found with the globe flower near the pond at Hidden Lake Pass in late July and August.









COOLWORT FOAMFLOWER

(Laceflower)
Tiarella unifoliata
SAXIFRAGE FAMILY

Flowers tiny, white and lace-like, from 10 to 16 blooms on each stem. Leaves maple-like in shape, up to 4 inches across but often smaller, the majority basal, 1 to 3 found on each 8 to 14 inch stem. Blooms throughout most of the season, into September. Inhabits cool moist forests on both sides of the park. Abundant on the Grinnell Lake, Trick Falls, Avalanche Lake and Sperry Chalet trails. Known in some regions as Nancy-over-the-ground.

SHINYLEAF SPIREA (White Meadowsweet)

Spirea lucida

ROSE FAMILY

Flowers small, creamy-white, clustered into a flat-topped head 2 to 4 inches across. Leaves alternate, 1 to 3 inches long, margins toothed. Stems woody, red, 8 to 24 inches tall. Not a shrubby plant as is the pink spirea. Grows best in open areas in the Prairie and Forest Zones on either side of the park. Found around Many Glacier, Rising Sun, Two Medicine, West Glacier and Lake McDonald during July and August. Also known locally as white spirea.

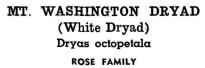
CREAMBUSH ROCKSPIREA (Mountain Spray) Holodiscus discolor

ROSE FAMILY

Flowers numerous, small and creamy-white, forming pendant, plumed clusters up to 10 inches long. Leaves coarsely toothed, 1 to 2½ inches long, green above, densely matted with fine gray hairs below. Shrub, 3 to 6 feet high. Found in McDonald Valley in the latter part of July and early August. Seen also along the highway near Sun Point, Rising Sun, and in the Many Glacier area. Called ocean spray in the other national parks of the Pacific Coast.

BLUELEAF STRAWBERRY Fragaria glauca ROSE FAMILY

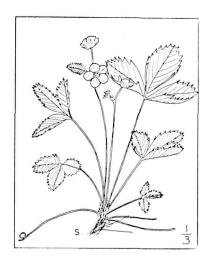
Flowers white, neary an inch in diameter, centers bright yellow; petals 5. Leaves in threes, ½ to 1¾ inches long, margins toothed. Fruit red, much smaller than the cultivated strawberry, sweet and tasty, ripening in late July and August; much sought after by bears, birds and visitors. An easily recognized plant resembling the garden variety. Found throughout the park in the more or less open areas of the Scrub-Forest and Forest Zones. Many other species of wild strawberry, differing but slightly, are found in the park.

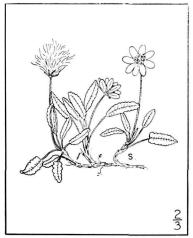


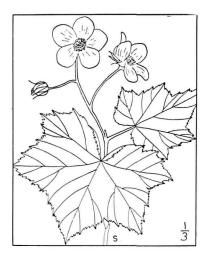
Flowers white, slightly over ½ inch in diameter; petals 8. Leaves dark green above, silvery below, stalked; mid-vein prominent on underside; margins have numerous low, rounded teeth. Fruit a cluster of feathery seeds, either spreading as illustrated, or twirled. A low plant with prostrate woody stems. Frequents the Scrub-Forest and Alpine Zones in the last two weeks of July. Blooms briefly near Swiftcurrent Pass, Gunsight Pass, Granite Park and at the top of the stone stairway near Sperry Glacier.

WESTERN THIMBLEBERRY Rubus parviflorus ROSE FAMILY

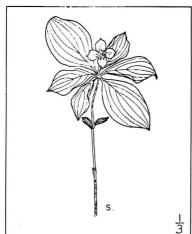
Flowers large, white, 1 to 2 inches broad, 5 petals. Leaves large, thin, maple-like, having a velvety texture, varying in size from 3 to 10 inches across, 5 major lobes, toothed margins. Shrub 2 to 4 feet tall. Fruit red, resembling a large raspberry, juicy and edible, however not as tasty as other park berries. Found in forests throughout the park. Common around Lake McDonald, St. Mary Lake, Two Medicine, and Many Glacier. Conspicuous on Grinnell Lake trail. Blooms late in June and throughout July.

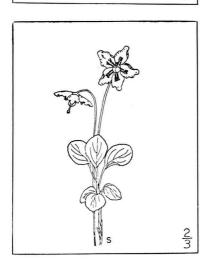












COMMON COWPARSNIP

Heracleum lanatum

PARSLEY FAMILY

Flowers white, umbrella-like, 4 to 8 inches broad. Leaves in threes, also very broad, 4 to 8 inches across; margins deeply lobed, toothed. Stems stout, often growing to 6 feet tall, covered with fine silky hairs. Fruit a flat round seed, less than ½ inch long. A common plant bordering trails and highways everywhere in the park. Conspicuous in the quaking aspen groves along Lower St. Mary Lake. Easterners notice a resemblance to their Queen Anne's lace. Both are members of the same family.

BUNCHBERRY DOGWOOD

(Canada Dogwood)

Cornus canadensis

DOGWOOD FAMILY

Flowers white in appearance. Actually composed of a number of tiny greenish-yellow flowers in a compact cluster, surrounded by 4 white petal-like bracts, each $\frac{1}{2}$ inch long. Leaves whorled, $\frac{1}{2}$ to $\frac{2}{2}$ inches long, usually 6 in number, one pair larger than the others. Fruit an attractive cluster of red berries. Grows 2 to 6 inches tall, more commonly occurring in the cool forests of the west side. Seen on the Avalanche Lake trail during July and early August.

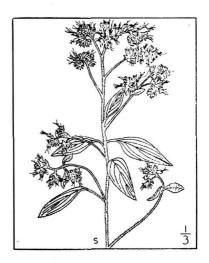
WOODNYMPH Moneses uniflora

HEATH FAMILY

Flowers white, ¾ inch in diameter, drooping, sweet-scented; petals 5. Leaves basal, bright green, rounded or nearly so, about ½ inch in diameter, margins finely toothed. A small plant, 2 to 6 inches tall. Grows in the moist, shaded soils of the Forest Zone on either side of the park. Blooms during July although seldom seen because of inconspicuous size. Found in the forests surrounding Lake McDonald Hotel, or on the trail to Avalanche Lake. Also blooms briefly on the trail to Grinnell Lake.

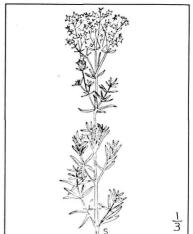
SILVERLEAF PHACELIA (White Phacelia) Phacelia leucophylla WATERLEAF FAMILY

Flowers dull white, ¼ inch long, clustered at the ends of each branching stem. Leaves 1 to 3 inches long, usually stalked. Stems and leaves covered with small, stiff, gray hairs. Leaf margins smooth except for hairs. An inhabitant of all elevations, preferring dry rocky soils. Blooms in June around St. Mary Lake, lasting through the entire summer. On west side blooming commences in July. One of the few plants found near the front of Grinnell Glacier.



NORTHERN BEDSTRAW Galium boreale MADDER FAMILY

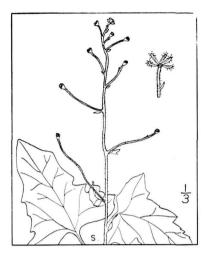
Flowers white, tiny, 4-lobed. Leaves in whorls of 4, $\frac{1}{4}$ to $1\frac{1}{2}$ inches long. Stems stout, coarse, 6 to 20 inches tall, their square shape and whorled leaves making the bedstraw unique in the park. The sweet bedstraw is also found in Glacier, having square stems and leaves in whorls of 6. Although northern bedstraw is the more common of the two, both are seen along nearly all park trails during July and early August.



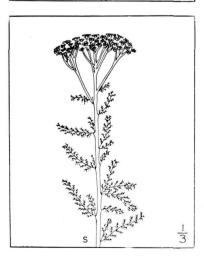
SITKA VALERIAN Valeriana sitchensis VALERIAN FAMILY

Flowers white, funnel-shaped, massed to form an attractive, half-rounded head. Leaves composed of 3 to 7 leaflets varying in shape and size, borne opposite on the stem; basal leaves long-stemmed. Stems smooth and hollow, growing up to 30 inches tall. Resembles the garden variety of heliotrope, and often called wild heliotrope. Flower sweet-scented, but crushed leaves and roots have a strong odor. Very common in the Scrub-Forest and Alpine Zones during the latter part of July and early August.









Avalanche Lake trail.

AMERICAN ADENOCAULON (Pathfinder)

Adenocaulon bicolor

COMPOSITE FAMILY

Flowers white, appearing as tufts at the tips of a 20 inch high, many-branched stem. Leaves triangular, 2 to 6 inches long, bright green above, underside matted with silvery-white hairs. Essentially unattractive, having numerous seeds which adhere to clothing. It claims distinction in that a person walking through a patch of this plant exposes the underside of the leaves, leaving a well marked trail. Common on the west side in the Forest Zone. Seen near the beginning of the

COMMON PEARL-EVERLASTING Anaphalis margaritacea

COMPOSITE FAMILY

Flowers clustered in white papery heads, centers yellow when mature. Leaves growing alternately on the stem, green above, woolly-white beneath. Length of leaves 1 to 3 inches, margins smooth, mid-vein prominent on underside. Grows up to 30 inches tall but averages around 14 inches. Common and widely distributed in the Prairie and Forest Zones. Seen everywhere along trails and roads in open dry places. A hardy plant blooming throughout July and August.

WESTERN YARROW Achillea lanulosa COMPOSITE FAMILY

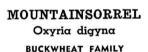
Flowers small, white, numerous, arranged in flat-topped clusters at the terminus of the stem. Leaves finely dissected, having a feathery appearance and growing alternately on the stem; when crushed the leaves give off a pungent odor. Stem stout, growing up to 2 feet tall but usually shorter. Requires little moisture; grows in rocky areas at all elevations, including the dry moraines of many of the park's glaciers. Found on both sides but prefers the drier eastern slopes.

* See also PACIFIC MOUNTAINASH — page 22, UTAH HONEYSUCKLE — page 24; SASKATOON SERVICE-BERRY — page 30; BLACKBEAD ELDER — page 37.

CLASPLEAF TWISTEDSTALK Streptopus amplexifolius

LILY FAMILY

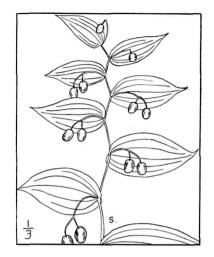
Fruit red, oval-shaped, ½ inch long, usually found in pairs growing in the axils of the leaves; appearing in late July and lasting through August. Flowers greenish-white, less than ½ inch long, bell-like, blooming early in season. Fruit and flowers hang down from underside of stem on a "twisted-stalk," generally hidden from view by the leaves. Leaves alternate, up to 5 inches long, clasping stem, veins prominent on under side. Plant branched, 1 to 3 feet high. Found in the moist forest areas of the park.

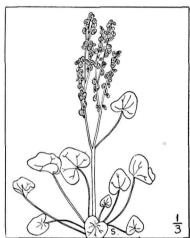


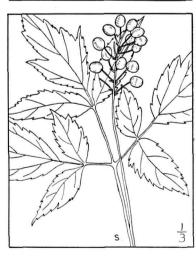
Fruit flat, tinged with red, circular in outline, less than ¼ inch long, thin winged. Flowers small, green, tinged with red, arranged in clusters 3 to 4 inches along the stem. Leaves mostly basal, kidney shaped, about 1½ inches wide, stalked, sour to the taste. Plant averages 10 inches in height but often found taller. Frequents the Scrub-Forest and Alpine Zones in open areas. Fruiting time, when most conspicuous, is late July and all of August. Seen around the steps of Sperry Chalet.

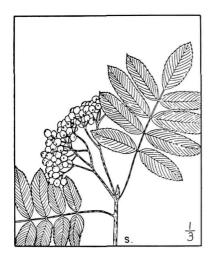
RED BANEBERRY Acted rubrd BUTTERCUP FAMILY

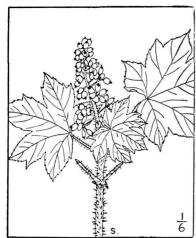
Fruit a berry, bright red, occasionally china white, surface appearing polished, arranged in a handsome cluster; seedy, not edible. Flowers small, greenish-white; clustered in an elongated head. Leaves composed of 3 deeply toothed leaflets. Plant grows 2 to 3 feet tall. Common in the Forest Zone, fruiting during late July and August. Found on the way to Grinnell and Iceberg Lakes in the Many Glacier area, the Trick Falls Self-Guiding Nature trail at Two Medicine, Sperry Chalet and Fish Lake trails, and at Sun Point.

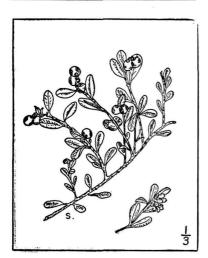












PACIFIC MOUNTAINASH

Sorbus sitchensis

ROSE FAMILY

Fruit a large cluster of berries, changing from green to yellow to orange, then ripening a bright red; not edible. Flowers white, fragrant, forming a flat to convex-shaped cluster, blooming in June or early July. Leaves composed of 5 to 13 leaflets, each about 2 inches long, margins finely toothed. Grows here as a shrub 3 to 12 feet high, found mainly in the Prairie and Forest Zones, common to both sides. A common ornamental tree in North American cities.

AMERICAN DEVILSCLUB

Oplopanax horridus

GINSENG FAMILY

Fruit a laterally compressed berry, brilliant red, distributed in a cone-like cluster at the summit of the stem. Flowers unattractive, greenish-white. Leaves broad, maple-like, 5 or more lobes, 4 to 12 inches across, principal veins with prickly spines on underside. Plant shrubby, stems thick, 3 to 5 feet tall, armed with long sharp spines. Grows in forest areas mainly on the west side. Found along highway between Lake McDonald and Avalanche Campground. Abundant on Avalanche Lake trail and first 1½ miles of Sperry Chalet trail.

BEARBERRY Arctostaphylos uva-ursi HEATH FAMILY

Fruit a bright red berry, dry, insipid and seedy. Flowers tiny, pinkish, bell-shaped, less than ¼ inch long. Leaves ½ to l inch long, paddle-shaped, thick, leathery, and evergreen. Plant woody and much-branched, forming extensive prostrate mats, seldom growing higher than 12 inches. Common at all elevations in the park. Abundant in dry rocky places, especially in old burns or dry evergreen forests. Berries eaten by birds and bears. Leaves, in a mixture with other plants, smoked by Indians. Indian name. "Kinnikinnick."

RED MOUNTAINHEATH (Red Heather) Phyllodoce empetriformis HEATH FAMILY

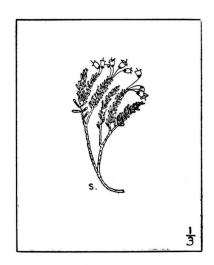
Flowers red, tiny, bell-like, $\frac{1}{3}$ inch long in clusters above the leaves. Fruit a small red pod, favored by ptarmigan. Leaves needle-like, resembling those of the alpine fir, but shorter, less than $\frac{1}{2}$ inch long. Plant erect, growing 4 to 10 inches tall. Most common in the meadows of the Scrub-Forest and Alpine Zones, blooming during the last half of July. Found associating with white heather and alpine bog kalmia at Logan Pass, Iceberg Lake and similar habitats.

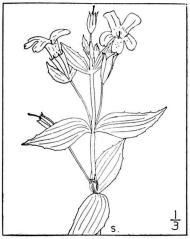
LEWIS MIMULUS (Red Monkeyflower) Mimulus lewisi FIGWORT FAMILY

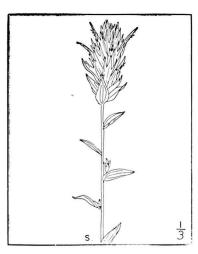
Flowers rose-red, tubular, large and showy, 1 inch broad, growing from the axils of the leaves. Leaves opposite, about 2 inches long, teeth well spaced along the margin. Plant grows in clumps, 1 to 2 feet high, in the Forest and Scrub-Forest Zones. Abundant in Glacier on both sides, growing along stream banks and trickling water courses. Seen on the trails to Iceberg Lake, Grinnell Glacier, and around Sperry Chalet, Granite Park, Hidden Lake, Logan Pass and Two Medicine in late July and early August.

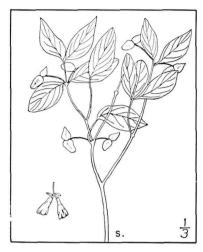
SCARLET PAINTEDCUP (Indian Paintbrush) Castilleja miniata FIGWORT FAMILY

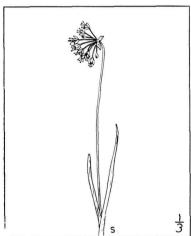
Flower-like leaves red, in dense terminal clusters. Actual flowers narrow, tubular, and green, enclosed in the many colorful leafy-like bracts. Leaves alternate, up to 2 inches long. Stems erect, 1 to 4 feet tall. Blooms from June to September, depending on the elevation. Several varieties are seen in the park in shades of white, yellow, orange, and pink—color and height being their only points of difference. At least one specimen of paintedcup is found along nearly every trail and roadway in the park.

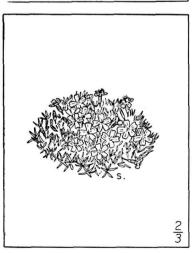












UTAH HONEYSUCKLE (Red Twinberry) Lonicera utahensis

HONEYSUCKLE FAMILY

Fruit a double berry, bright red, the pair connected, one generally larger than the other, growing on a 1 inch stem from the axils of the leaves. Flowers white, trumpet-like, also in pairs, $\frac{1}{2}$ to $\frac{3}{4}$ inch long. Leaves pale green, thin, 1 to $\frac{2}{2}$ inches long. Shrub, 2 to 5 feet tall, growing in the Forest and Scrub-Forest Zones in partial shade on both sides of the park. Blooms in June and early July; the inedible berries ripening a short time later.

PINK SECTION

NODDING ONION

Allium cernuum

LILY FAMILY

Flowers pink, grouped into a loose, nodding cluster at the end of a smooth, 8 to 20 inch stem. Leaves narrow, not hollow, 4 to 12 inches long; the nodding, spreading character of the flower is its foremost recognition feature, distinguishing it from the erect and compact purple onion. Grows in all life zones on both sides of the park, preferring a dryer habitat than its purple cousin. At low elevations it blooms during mid-July, lasting until mid-August in the higher regions. Seen on the Garden Wall trail during late July.

MOSS SILENE (Carpet Pink) Silene αcαulis

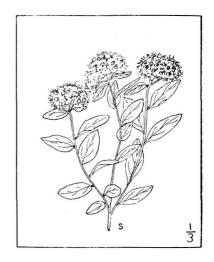
Flowers pink to purplish-pink, ¼ to ⅓ inch broad, nearly stemless; petals 5, notched. Leaves dark green, very narrow, stiff and pointed, ⅙ inch long. Stems spreading from a large tap-root, giving plant a dwarfed, matted appearance. Truly an alpine plant; hugging the rocky soil as if to avoid the drying action of the wind. Seen on the trail at Hidden Lake Pass during mid-July depending on the snow conditions. Found at many other passes during late July, and on the drier ridges of the eastern slopes.

PINK SECTION

SUBALPINE SPIREA (Pink Meadowsweet) Spirea densiflora

ROSE FAMILY

Flowers small, pink to pinkish-rose, grouped into a rounded showy cluster 1 to 2 inches in diameter. Leaves alternate, 1 to 1½ inches long; margins toothed. Grows 1 to 4 feet high; perhaps Glacier's most attractive shrub when in full bloom. Most common in the openings of the Forest and Scrub-Forest Zones. Abundant at Grinnell Lake, on the Grinnell Glacier trail, blooming in mid-July for a short time only; also seen at Granite Park in later July. Often called pink spirea.

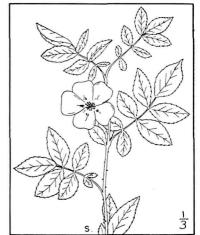


BALDHIP ROSE

Rosa gymnocarpa

ROSE FAMILY

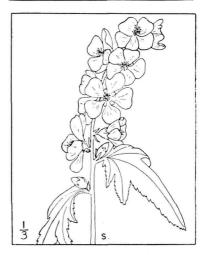
Flowers pink, $1\frac{1}{2}$ to 2 inches broad; petals 5, more or less heart-shaped. Leaves alternate, composed of 5 to 9 leaflets; texture smooth and thin, light green, margins toothed. A woody shrub 1 to 6 feet tall, stems sharply spined. Fruit smooth, berry-like, $\frac{3}{6}$ inch long, called a "hip." This rose differs from other park roses in that its hip sheds its sepals, thus giving rise to the common name. Seen around West Glacier and Lake McDonald.

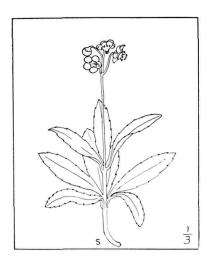


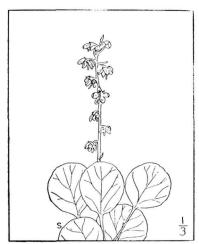
STREAM GLOBEMALLOW (Wild Hollyhock) Sphaeralcea rivularis

MALLOW FAMILY

Flowers a delicate pink, often white, fragrant, 2 inches broad; petals 5, growing from the axils of the upper leaves. Leaves alternate, broad; the lower ones maple-like, 2 to 8 inches across, generally 5-lobed; margins toothed. Stems erect, slender, wand-like, growing from 2 to 6 feet tall. Found along the highways and trails at Many Glacier and Two Medicine and in the St. Mary and McDonald Valleys. Blooms during late July and early August.









PINK SECTION

WESTERN PIPSISSEWA Chimaphila umbellata occidentalis HEATH FAMILY

Flowers pink, nodding, small, about ½ inch in diameter; petals 5, each concave and waxy, about ¼ inch across. Leaves whorled, evergreen, 1 to ½ inches long, shiny dark green, leathery, margins with forward pointing teeth. Stems erect, 4 to 10 inches tall. Found along the trails of the Forest Zone everywhere in the park; blooming during last half of July and early August. Seen on the Trick Falls Self-Guiding Nature trail and the trail to Sperry Chalet. Often called prince's pine.

ALPINE PYROLA (Pink Pyrola) Pyrola asarifolia HEATH FAMILY

Flowers pink, waxy, about ½ inch across, usually nodding; petals 5, the pollen collector or stigma, very conspicuous. Leaves basal, more or less rounded, about 10 in number, 2 to 2½ inches in diameter; stalked. Stems erect, bracted, 8 to 18 inches tall, supporting 10 to 20 hugging flowers. Several pyrolas are found in Glacier, most commonly in the shade of the Forest and Scrub-Forest Zones. Seen on the Grinnell Lake and Trick Falls trails during mid-July.

ALPINE BOG KALMIA (Mountain Laurel) Kalmia polifolio microphylla HEATH FAMILY

Flowers pink, ½ to ¾ inch broad, saucer-shaped with 5 symmetrical lobes. Leaves evergreen, opposite, up to ¾ inch long, a darker green above than below. Stems 3 to 8 inches tall, woody, supporting several stalked flowers at the tip. Common in Scrub-Forest and Alpine Zone meadows. Poisonous to browsing animals, but nature has apparently taught them to shun it. Seen at Iceberg Lake, Hidden Lake, Logan Pass, and on the Garden Wall trail during the last half of July.

PINK SECTION *

TWINFLOWER Linnaea borealis HONEYSUCKLE FAMILY

Flowers pink, bell shaped, less than ½ inch long, borne in nodding pairs. Leaves opposite, bright green and glossy, more or less rounded, ½ inch long. Stems prostrate, woody and slender, 10 to 30 inches long, sending up vertical thread-like branches 3 to 4 inches high, forking at the summit to bear the "twin flowers." A west side Forest Zone evergreen, easily recognized by the dense matted leaves and delightfully fragrant flowers. Seen on the way to Avalanche Lake, Fish Lake and Sperry Chalet during July.

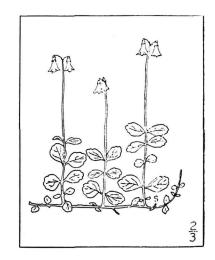


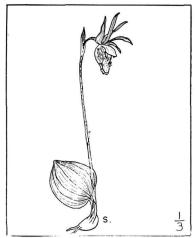
CALYPSO Calypso bulbosa ORCHID FAMILY

Flowers dainty, rosy purple-pink, nodding, having an irregular 1 inch long, purple-veined, slipperlike sack, with 5 petals and sepals flaring above it. Stems 3 to 6 inches high, supporting one terminal flower, a single 1 to $1\frac{1}{2}$ inch long basal leaf, and 2 or 3 small scales along its length. Only early visitors see this handsome orchid which is quite rarely found after early July. Seen in June on the west side, especially around Lake McDonald Hotel in the damp evergreen forests.

FIREWEED Epilobium angustifolium EVENING PRIMROSE FAMILY

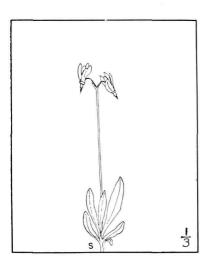
Flowers rosy purple-pink, about $1\frac{1}{2}$ inches broad; petals 4; clustered along a tall stem. Leaves alternate, narrow, 3 to 6 inches long. Stems erect, 2 to 5 feet tall. Generally grows in extensive brilliant patches in old burns, forest openings, and along trails and roadsides. Blooms from the bottom upward, having seed pods, flowers, and buds present at the same time. One of Glacier's most common and colorful flowers. Abundant on Going-to-the-Sun highway in later July and August.







See also BEARBERRY — page 22; BIG WHORTLEBERRY page 36.







PURPLISH-PINK SECTION

DARKTHROAT SHOOTINGSTAR

Dodecatheon pauciflorum

PRIMROSE FAMILY

Flowers purplish-pink, slightly less than one inch long, banded with a red and yellow ring; petals 5. Leaves 1 to 4 inches long, forming a basal rosette from which a slender stalk rises 6 to 14 inches. At the top, the stem branches and supports one to several "shooting stars" streaming earthward like bursting rockets on the Fourth of July. Best seen on the bench below the vista point, overlooking Hidden Lake. Blooms in late July.

MINTLEAF BEEBALM

(Horsemint)

Monarda menthaefolia

MINT FAMILY

Flowers purplish-pink, 1 inch long, grouped in a large terminal head-like cluster; the pollenbearing stamens conspicuous. Leaves opposite, about 2 inches long, margins toothed. Stems square, 1 to 2 feet tall. Most abundant in the Prairie and Forest Zones. Found on both sides of the park but most common in the open dry areas of the east side. Often seen in clumps growing along the highway near Sun Point in late July and early August.

BRACTED PEDICULARIS (Indian Warrior) Pedicularis bracteosa FIGWORT FAMILY

Flower color varies with individual plants, purplish-pink to greenish-yellow. Flowers ½ to ¾ inch long, curved downward at tip, grouped in a dense elongated cluster, resembling an Indian head-dress. Leaves alternate, 1 to 6 inches long, lobed to center of stem. Grows to 2½ feet tall. Found at nearly all elevations; most abundant in the Forest Zone of the east side. Blooms in late July and early August. Seen on the Trick Falls Self-Guiding Nature trail.

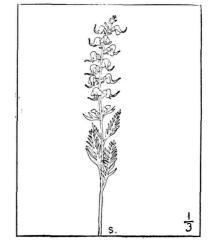
PURPLISH-PINK SECTION

ELEPHANTHEAD PEDICULARIS

Pedicularis groenlandica

FIGWORT FAMILY

Flowers purplish-pink, small, less than ½ inch long, arranged along the upper half of the stem. Leaves alternate, ½ to 2 inches long, lobed nearly to center of stem. Grows 6 to 12 inches tall; favoring the moist meadows of the Scrub-Forest Zone. Close inspection of an individual bloom reveals its resemblance to an elephant's head, complete with smooth forehead, big ears, long, upward curving trunk, and even two tiny tusks. Best seen at Iceberg Lake or Hidden Lake Pass during late July or early August.



PURPLE SECTION

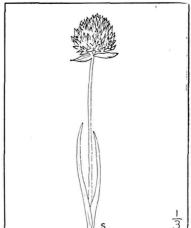
SIBERIAN CHIVE

(Purple Onion)

Allium scheenoprasm sibiricum

LILY FAMILY

Flowers purple, grouped into a compact, round-topped cluster at the top of a smooth stem, 8 to 20 inches tall. The flower cluster often mistaken at first glance for purple clover. Leaves long and narrow, averaging 10 inches in height; round and hollow. A long-lived plant, found mainly in moist places in the Scrub-Forest Zone. Seen near the viewpoint at Hidden Lake around end of July and early August. Common in several places on the trail to Iceberg Lake.

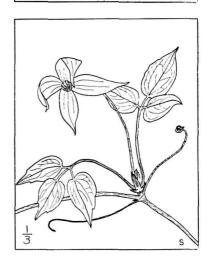


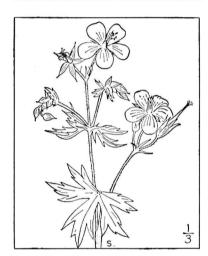
COLUMBIAN ROCK CLEMATIS (Purple Clematis)

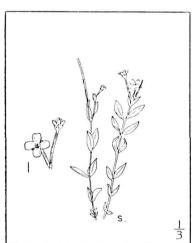
Clematis verticillaris columbiana

BUTTERCUP FAMILY

Flowers purple, colored parts 4 petal-like sepals 1 to 2 inches in length. Leaves opposite, divided into 3 leaflets, 1 to 4 inches long. Stems woody crawling vines, climbing by means of tendrils. Fruit a cluster of tufted seeds, forming a handsome feathery head, 2 inches long. Prefers the trails and roadsides of the Forest Zone. Seen in the vicinity of Lake McDonald, St. Mary Lake and Lake Josephine, blooming in June and early July.







SASKATOON SERVICEBERRY Amelanchier alnifolia

ROSE FAMILY

Fruit dark purple, containing about 10 seeds, otherwise plump, juicy and edible. Flowers white, less than an inch broad, straggly in appearance, blooming in June and early July. Leaves slightly longer than broad, ½ to 1½ inches long, margins toothed except near base. Grows 3 to 8 feet high, provides browse for park animals. The berries are obtainable in open situations, or on the borders of the park forests. The dried berries were important to the local Indians for winter food.

STICKY GERANIUM

Geranium viscosissimum GERANIUM FAMILY

Flowers purple, about $1\frac{1}{2}$ inches broad; petals 5, delicately veined. Leaves up to 6 inches across, usually less, 3 to 5 indentations half way to the mid-vein. Stems covered with minute hairs which exude a sticky substance. A Prairie Zone plant growing in clumps up to 2 feet tall; blooming during June and into July. Abundant on the east side where this zone is largely represented. Seen while driving into Many Glacier, or between St. Mary and Rising Sun. Observed in clearings on the North Fork road.

PURPLE ALPINE WILLOWWEED Epilobium anagallidifolium

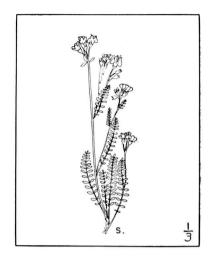
EVENING PRIMROSE FAMILY

Flowers small, pale to deep purple, about $\frac{1}{4}$ inch broad; petals 4. Leaves opposite, averaging $\frac{1}{2}$ inch long. Stems 3 to 8 inches tall. Seeds many, each with a tuft of hair, clustered before ripening into a deep purple pod $1\frac{1}{2}$ inches long. An inconspicuous plant, found in moist places in the Scrub-Forest Zone. Seen at Logan Pass, Sperry Chalet, and Granite Park Chalet. Other similar willowweeds are found in the Forest Zone, varying only in height and color.

MONTANA POLEMONIUM (Jacob's Ladder) Polemonium parvifolium

PHLOX FAMILY

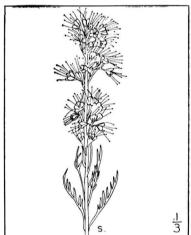
Flowers purple, small, cup-shaped, occurring in clusters at ends of each stem; petals 5, ½ inch long. Leaves unusual, composed of 9 to 29 leaflets, each less than ¼ inch long, and growing opposite on a thin central stalk, suggesting a tiny ladder. A common plant, 3 to 10 inches tall in the open rocky slopes of the Alpine Zone. A similar flower, the skunk plant, with leaflets in whorls of 4, and larger purple flower, is found in the same habitat.



SILKY PHACELIA Phacelia sericea

WATERLEAF FAMILY

Flowers purple, clustered on upper half of stem, more or less trumpet-shaped and parted into 5 rounded petal-like lobes. The pollen-bearing organs, called stamens, are 5 in number, long and conspicuous. Leaves alternate, silky-haired, deeply lobed. Stems erect and slender, about 1 foot tall. An early bloomer in the open areas of Many Glacier, Rising Sun, and Two Medicine. Found later in July and early August at higher elevations on the east side of the park.

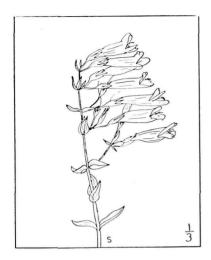


COMMON SELFHEAL (Heal-all) Prunella vulgaris

MINT FAMILY

Flowers purple, small, crowded into a whorled series of leaf-like bracts at the top of a 4 to 12 inch stem. Leaves growing opposite, 1 to 4 inches long. Seen along the trails in the Forest Zone on both sides of the park in late July and early August. This plant is originally from Europe. Prunella is derived from the German word "braune" for quinsy (sore throat), a condition for which this plant was thought a remedy.









LYALL PENSTEMON (Purple Pentstemon)

Penstemon lyalli

FIGWORT FAMILY

Flowers purple, elongated tubes, $1\frac{1}{2}$ to 2 inches long. Flowers on east stem tend to face the same direction, not whorled as in the other penstemons. Leaves narrow, opposite, 1 to 4 inches long, margins finely toothed. Grows in dense clumps, occasionally up to 16 inches tall. Prefers open dry areas in the Prairie and Forest Zones on the east side. Seen in profusion along the highway near Rising Sun and Sun Point in early to mid-July. Often called purple beard-tongue.

TALL LEAFYBRACT ASTER

(Purple Aster)
Aster foliaceus frondeus

COMPOSITE FAMILY

Flowers purple, centers yellow, several on each stem; the petal-like rays 15 to 30 in number. Leaves alternate, often 3 inches long. Stems erect, many-branched, 1 to 2 feet tall. Very common, found on both sides up to the Alpine Zone. Numerous asters are found in the park, but are difficult to differentiate and many bear a close resemblance to the fleabanes. This aster is slow in the season's floral procession, not blooming until August, and lasting late into September.

ASPEN FLEABANE (Smooth Fleabane) Erigeron macranthus

COMPOSITE FAMILY

Flowers purple, centers yellow; several flower heads, each $1\frac{1}{2}$ inches in diameter. The many petal-like rays very narrow, a distinguishing feature since there are often over 100 in number. Leaves alternate, 2 to 4 inches long, clasping the stem. In the fleabane the leaf-like bracts under the flowers are arranged in a series of 1 or 2 rows; in the asters they are in no particular order. Most common on the east side during July and early August.

ASTER FLEABANE (Showy Fleabane) Erigeron sausuginosus COMPOSITE FAMILY

Flowers purple, centers yellow; single head 1½ to 2 inches broad, one to each stem. Rays wider than other fleabanes, 30 to 50 in number, each with a tiny notch at the tip. Leaves alternate, averaging 2 inches in length. Stem about 12 inches tall. During August it is a common plant on the Orientation Circle at Logan Pass. Found in other Scrub-Forest Zone areas such as Granite Park, Sperry Chalet, Preston Park and the Hidden Lake trail.

BULL THISTLE (Common Thistle) Cirsium lanceolatum COMPOSITE FAMILY

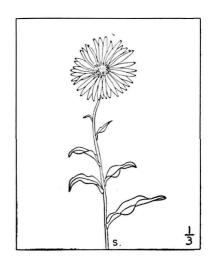
Flowers purple, clustered into large heads 1 to $1\frac{1}{2}$ inches broad, armed with spines. Leaves greener above than below, hairy both sides, deeply lobed, each lobe terminating in a sharp spine. Stems thick, also spiny, growing to 3 feet tall. Common on west side. Other thistles are found throughout Glacier. Lost or injured hikers have been known to survive on these plants for days. The young tender stalks can be peeled, boiled and eaten. The white-flowered thistle, common on the east side, is best for this purpose.

PURPLISH-BLUE SECTION

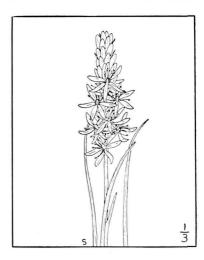
COMMON CAMAS Camassia guamash

LILY FAMILY

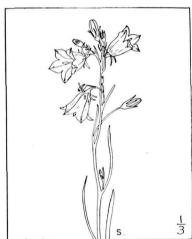
Flowers purplish-blue, l to 2 inches in diameter, separated into 6 spreading divisions composed of petals and sepals. Leaves grass-like, basal, about 12 inches long. Stems stout, l to 2 feet tall. Grows at low elevations on the east side, blooming early in the season while the Prairie Zone soils are still moist. Camas bulbs provided Indians of this region with an important food. Also responsible for many Western place names, including Camas Lake and Camas Creek in Glacier National Park.

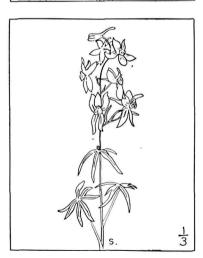












PURPLISH-BLUE SECTION

SHOWY CRAZYWEED

(Hairy Locoweed)
Oxytropis splendens

PEA FAMILY

Flowers purplish-blue, ½ inch long, grouped in a head or along the stem. Leaflets about ½ inch long, in numerous whorls of 4. Grows in clumps, 4 to 10 inches high, easily recognized by the attractive silvery-gray cast of the entire plant. Called locoweed because it contains a habit-forming drug often detrimental to animals acquiring a taste for it. Most common in the drier east side Prairie and Forest Zones, blooming from early July to mid-August.

AMERICAN HAREBELL

Campanula petiolata

HAREBELL FAMILY

Flowers purplish-blue, nodding and bell-like, ½ to ¾ inch long. Stems leaves alternate, narrow, about 3 inches long; those at the base rounded or heart-shaped. Grows in clumps on slender, 1 foot tall stems. Found in open areas at all elevations throughout the park, but seems to prefer the fields of the east side. Abundant at East Glacier, Two Medicine, St. Mary, Rising Sun and Many Glacier, from mid-July to mid-August. This is the internationally famous "bluebell of Scotland."

BLUE SECTION

LITTLE LARKSPUR Delphinium bicolor BUTTERCUP FAMILY

Flowers deep blue, tinged with purple, the petal-like sepals 5 in number, the upper one spurred at the back. Leaves stalked, deeply lobed and divided, about 2 inches across. Stems 10 to 14 inches tall, supporting 3 to 8 flowers near the top. This and similar larkspurs are found at all elevations in the park, preferring the dry open hillsides. Although it has little or no effect on park wildlife, the larkspur is one of the most deadly of poisonous plants on the Montana cattle ranges.

BLUE SECTION

SILKY LUPINE

Lupinus sericeus

PEA FAMILY

Flowers blue, less than ½ inch long, clustered along the upper portion of the stem. Leaves composed of 8 to 10 hairy leaflets; boat-shaped, 1 to 2 inches long. Grows in dense, colorful clumps, 1 to 2 feet tall, in the open fields of the east side Prairie Zone and lower Forest Zone. Several species of lupine provide the color photographer with fine subjects during July and August. Found along the highways near Lake Sherburne and Rising Sun, or in several places in the Two Medicine area.

LEWIS FLAX (Blue Flax) Linum lewisi FLAX FAMILY

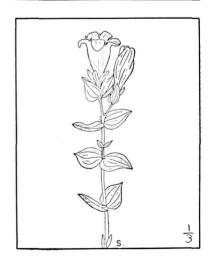
Flowers pure blue, about 1 inch across, petals delicately veined, 5 in number. Leaves alternate, very narrow, ½ inch long, borne along the stem up to the flowers. Stems slender, erect, 6 to 16 inches tall, branched only at the terminus, where 1 or 2 flowers at a time are borne. Found at all elevations but favors the rocky areas of the east side Prairie Zone; blooming during July. The individual blooms last only a few days, then new buds take their places.

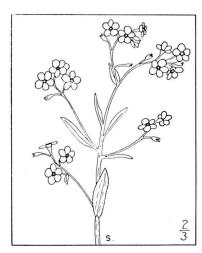
RAINIER PLEATED GENTIAN (Blue Gentian) Gentiana calycosa GENTIAN FAMILY

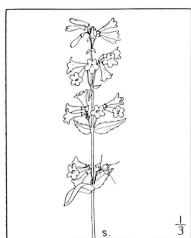
Flowers deep blue, dotted with green, 1½ inches long, bell-shaped and erect, the 5 lobes each separated by 2 small teeth. Leaves opposite, 1 inch long. Stems smooth, 6 to 10 inches tall. Generally grows in clumps in the open meadows of the Scrub-Forest Zone, individual plants occasionally found in the Forest Zone. Perhaps Glacier's most attractive flower; blooming during late July and August. Seen near Hidden Lake vista point, Logan Pass, Preston Park, Cracker Lake and Iceberg Lake.

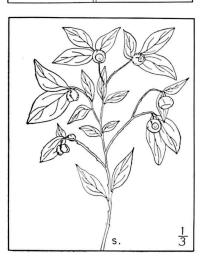












BLUE SECTION

BUR FORGETMENOT Hackelia diffusa BORAGE FAMILY

Flowers pale blue, small and numerous, each with 5 petals and a yellow center. Leaves alternate, narrow, 2 to 5 inches long; hairy. An inhabitant of the Forest Zone, growing from 1 to 3 feet tall, loosely branched. Very common on the trail to Grinnell Lake during late July and August. Its unusual height surprises visitors who easily recognize this plant as a forgetmenot. The fruit, a tiny nutlet, is covered with burs, causing it to collect on the clothing.

BLUE PENSTEMON (Blue Beardtongue) Penstemon virens FIGWORT FAMILY

Flowers deep blue, tubular, ¾ inch long, arranged in multiple whorls. Leaves opposite, averaging 1¼ inches long; margins finely toothed. An attractive plant growing 8 to 15 inches tall, distributed at random on the east side, blooming during July. Presents a vivid contrast against the red argillite on the eastern side of the Goingto-the-Sun Highway. Nine other penstemons are found in Glacier, including a yellow variety. The purple penstemon is described under that color group.

BLACK SECTION

BIG WHORTLEBERRY (Huckleberry) Vaccinium membranaceum

HEATH FAMILY

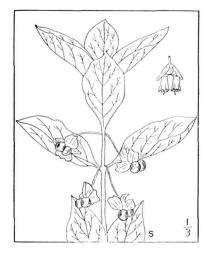
Fruit black or purplish black, sweet and juicy. Flowers small, bell-shaped, pinkish white, blooming early in season. Leaves alternate, ½ to 2 inches long, turning brilliant scarlet in late summer. Shrub 1 to 5 feet tall. Most sought-after berry in Glacier, excellent eating, fresh cooked or dried. No pie can compare with one made from Glaciergrown "huckleberries." They begin to ripen in late July at low elevations and continue till mid-September at higher elevations throughout the park. Best picking away from well used trails.

BLACK SECTION

BEARBERRY HONEYSUCKLE (Black Twinberry) Lonicera involucrata

HONEYSUCKLE FAMILY

Fruit a black glistening berry, borne in pairs, growing on a 2 inch stem from the axils of the leaves. Easily recognized by the presence of 2 red leafy-like bracts enclosing the tart, inedible berries, flowers yellow, tubular, ½ to ¾ inch long, also in pairs. Leaves 2 to 5 inches long, glossy green. Shrub, 2 to 6 feet high, very common in the Forest and Scrub-Forest Zones everywhere in Glacier. Blooms in June, fruit appears during July and August.



BLACKBEAD ELDER (Elderberry) Sambucus melanocarpa HONEYSUCKLE FAMILY

Fruit a berry, small, arranged in dense clusters. Flowers small, yellowish-white, borne in a cluster 2 to 3 inches broad. Leaves opposite, composed of 5 to 7 leaflets, margins closely toothed. Leaflets charateristic in that one side of each leaflet extends further down the stem than the other. Shrub, 3 to 5 feet tall, generally abundant in the Forest Zone throughout the park. Fruit used elsewhere for pies, jam, and wine, but utilized here only by birds, deer and other wild-life.





PRINTED IN U. S. A.

BY

GLACIER NATURAL HISTORY ASSOCIATION

1957

The O'Neil Printers, Kalispell



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Sweetclover, Yellow 6

Thalictrum occidentale 11
Thimbleberry, Western 17
Thistle, Bull 33
Thistle, Common 33
Tiarella unifoliata 16
Toadflax, Butter-and-Eggs 8
Trillium ovatum 13
Trillium, Pacific 13
Trollius albiflorus 15
Twinberry, Black 37
Twinberry, Red 24
Twinflower 27
Twistedstalk, Claspleaf 21

Umbrella Plant 14 Urtica Ivalli 10

Vaccinium membranaceum 36
Valeriana sitchensis 19
Valerian, Sitka 19
Veratrum viride 10
Verbascum thapsus 7
Viola glabella 7
Violet, Pioneer 7
Violet, Tall Yellow 7

Wake Robin 13
Warrior, Indian 28
Whortleberry, Big 36
WHITE SECTION 12
Wild-sarsaparilla 11
Willowweed, Purple Alpine 30
Woodnymph 18

Xerophyllum tenax 12

Yarrow, Western 20 YELLOW SECTION 4

Zigadenus elegans 11

GLACIER NATURAL HISTORY ASSOCIATION, Inc.

Glacier National Park

West Glacier, Montana

Organized for the purpose of cooperating with the National Park Service by assisting the Interpretive Division of Glacier National Park in the development of a broad public understanding of the geology, plant and animal life, history, Indians, and related subjects bearing on the park region. It aids in the development of the Glacier National Park library, museums, and wayside exhibits; offers books on natural history for sale to the public; assists in the acquisition of non-federally owned lands within the park in behalf of the United States Government; and cooperates with the Government in the interest of Glacier National Park.

Revenues obtained by the Association are devoted entirely to the purposes outlined. Any person interested in the furtherance of these purposes may become a member upon payment of the annual fee of one dollar. Gifts and donations are accepted for land acquisition or general use.

The following Special Bulletins published by the Association are for sale.

Bull. No. 1-Motorists Guide to the Going-to-the-Sun Highway	25 ¢
Bull. No. 2—Glaciers and Glaciation in Glacier National Park	25 ¢
Bull. No. 3—Geologic Story of Glacier National Park	25 ¢
Bull. No. 4—Trees and Forests of Glacier National Park	50 ¢
Bull. No. 5—101 Wildflowers of Glacier National Park	50 ¢
Bull. No. 6—Mammals of Glacier National Park	\$1.00