# Zion National Park - What's Up and Blooming - 2003

Copyright 2000-2004 Margaret Malm

# **Table of Contents**

	Foreword	0
Part I	Welcome	2
Part II	April 4, 2003	2
Part III	April 11, 2003	6
Part IV	April 24, 2003	10
Part V	May 3, 2003	15
Part VI	May 18, 2003	19
Part VII	May 23, 2003	23
Part VIII	Pictures by color	29
1	White flowers	
2	Pink to red/red-violet	
	Blue or purple	
4	Yellow or orange	33
5	Variable colors	
6	Trees/inconspicuous	35

I

2

# 1 Welcome

# Zion National Park

# What's up --and Blooming?

# 2003

We're having a really good flower bloom this year, at least so far. Finally got a little rain at just the right time. We'll need more, though, if the season is to continue like this. Y'all practice up on your rain dances!

<u>All these flowers can be seen from the roads and trails!</u> We want you to enjoy the flowers; photograph them, tell them you love them, BUT please stay on the roads and trails so that you do not trample the plants and/or compact the soil, thus destroying what you seek to admire. Left unmolested, others may also enjoy them, and they can reproduce and still be there for future generations to enjoy and study; and the wildlife will still have the habitat and food upon which their lives depend.

# by Margaret Malm Zion National Park

Web desig and technical services provided by Tony Frates/Addsum Business Software, Inc.

> Web site hosting provided by Utah Native Plant Society, Inc.

2 April 4, 2003

# **Zion National Park**

# What's up --and Blooming?

We're having a really good flower bloom this year, at least so far. Finally got a little rain at just the right time. We'll need more, though, if the season is to continue like this. Y'all practice up on your rain dances!

All these flowers can be seen from the roads and trails! We want you to enjoy the flowers; photograph them, tell them you love them, BUT please stay on the roads and trails so that you do not trample the plants and/or compact the soil, thus destroying what you seek to admire. Left unmolested, others may also enjoy them, and they can reproduce and still be there for future generations to enjoy and study: and the wildlife will still have the habitat and food upon which their lives depend.

**NOTE:** Pictures are available for most of the listed species. To see pictures, click on the Pictures by color section and click on the category of interest. (Photographs may not be used without permission!)

# WHITE FLOWERS

# Erigeron pumilus

3

# EARLY WHITE DAISY

An early bloomer, somewhat s bpreading, with rather narrow leaves; both they and the stems rather hairy. Typical daisy flowers, with many rays in several layers; usually light pink or bluish, rather than white, despite the name. Look for it in the lower areas of Zion Canvon.

# Amelanchier utahensis

# UTAH SERVICEBERRY

A deciduous shrub, with white flowers that come out along with the leaves in early spring, quite showy in full bloom. Its small roundish leaves have serrated tips. The berries are rather small and dry, not much good for food (in contrast to the Saskatoon, found at higher elevations here), but Indians made arrow shafts from the branches. Mostly on the dry slopes in Zion Canyon.

# Montia perfoliata

# MINER'S LETTUCE

# The stems of the small white flowers of this plant go right up through the centers of the round leaves. A good source of Vitamin C, miners used the plants in salads to prevent Scurvy. It likes shady relatively moist areas.

# PINK TO RED OR RED-VIOLET FLOWERS

ROCKCRESS Arabis holboellii & Arabis perennans Mustard Family One or a few long skinny stems arise from a rosette of basal leaves; the pink to red-violet flowers are rather widely spaced along the upper stem. Stem leaves long and narrow, with a short ear extending back around the stem on each side at the base. These two species very closely related and apparently hybridize, so impossible to tell apart without fruits (sometimes not even then).

# Astragalus zionis

# **ZION MILKVETCH**

# Pea Family A low spreading plant having compound leaves with many pairs of opposite rather silvery (and hairy) leaflets. Its flowers are typical pea ones, red violet with white markings in the throat. Very attractive! Look for it in sandy spots from Coalpits Wash up into the slickrock; one of our earliest bloomers.

Astragalus argophyllus, SILVER-LEAVED MILKVETCH, is very similar & nearly impossible to distinguish until the seed pods appear, but prefers higher elevations with better soil. (picture not available)

# Erodium cicutarium

# **RED-STEMMED FILAREE**

Geranium Family A ground-cover plant often found in disturbed areas. The flowers are small, red-violet, and are followed by typical long narrow "stork's bill" seed pods. A favorite food of the endangered Desert Tortoise. Found on the Canyon bottom for most of the year but most prolific in spring. Even they are scarce this year.

PAINTBRUSH Castilleja species Snapdragon Family The traditional "Indian Paintbrush" of one or a few stems and bright red (on ours) "flowers", which are

# Purslane Family

Sunflower Family

Rose Family

Copyright 2000-2004 Margaret Malm

actually bracts (specialized leaves). The flowers are the pointy green things sometimes seen protruding slightly from inside the bracts . Just starting to strut their stuff now.

<u>Castilleja chromosa</u>, **EARLY PAINTBRUSH**, has bright scarlet "flowers". It is usually the first of our paintbrushes to bloom, and really brightens the landscape. The foliage is also reddish, especially early in the season.

<u>Castilleja scabrida</u>, **SLICKROCK PAINTBRUSH**, grows out of slickrock crevices; look for it on the east side of Zion.

<u>Castilleja linearifolia</u>, **WYOMING PAINTBRUSH**, has orange-red "flowers"; it starts blooming in the spring, continues through the summer and into the fall, by which time it has usually become quite tall and gangly. Found mostly in Zion Canyon.

Lathyrus brachycalyx var. zionis **ZION SWEETPEA** *Pea Family* The attractive deep pink flowers look like those of the cultivated sweetpeas, and sometimes when young also have the same marvelous aroma. A low plant found clambering with its tendrils on sunny rocky hillsides or disturbed roadsides.

Penstemon utahensis UTAH PENSTEMON Snapdragon Family Beautiful long velvety-red trumpet-shaped ruby red (hummingbird-pollinated) flowers that sometimes almost seem to glow, are the trademark of our earliest-blooming penstemon. Its leaves are rather narrow.

Ranunculus andersonii juniperinusSAND BUTTERCUPButtercup FamilySmall, ground-hugging plant; its gray-green leaves divided into tongue-shaped divisions, are all at the<br/>base. The flowers are on short leafless stems, and have glossy reddish petals. It likes sandy areas<br/>and is a very early bloomer, generally on the east side (Slickrock) area.It likes sandy areas

<u>Rumex crispus</u> **WILD RHUBARB, CURLY DOCK** Buckwheat Family The rusty-reddish flowers of this plant are small, many, and funny-looking. The leaves are typical rhubarb type with wavy crisped edges; their petioles (the edible "stems") are shorter than on the cultivated ones but can be used in the same way. Found in the flats in the lower Canyon.

# **BLUE OR PURPLE FLOWERS**

<u>Chorispora tenella</u> **MUSK MUSTARD** *Mustard Family* A small plant with blue-purple four-petaled flowers. Tends to have a musky scent, although this is usually hard to pick up. Found in disturbed area along trails and floodplain meadows in the canyon bottom.

Salvia dorriiPURPLE or DESERT SAGEMint FamilyA relatively small shrub with small silvery leaves having a distinct and delicious minty sage smell, The<br/>unusual and particularly beautiful bright blue flowers nestle in purple bracts; quite spectacular in<br/>flower!. Found on dry canyon slopes and flats. Blooming in my yard, so probably will be out here soon.

# YELLOW OR ORANGE FLOWERS

Baileya multiradiataDESERT MARIGOLDComposite FamilyThe very white foliage of this plant is due to its being covered by a mat of white hair. The 25-50 widelayered ray flowers and many disk flowers are bright yellow; usually a single flower head per stem.Found at the lower elevations such as the lower Watchman Trail; a showy 3-season bloomer.

# Cryptantha confertiflora YELLOW FORGET-ME-NOT Borage Family

A quite hairy plant with narrow green leaves and small bright yellow flowers in a "scorpion's tail" head. Look for it especially along the Watchman Trail and in Coalpits Wash in early spring.

5

<u>Draba asprella</u> var. <u>zionensis</u> **EARLY DRABA** *Mustard Family* This dainty mustard has its leaves all in a little rosette at the base of the plant, and a small cluster of bright yellow 4-petaled flowers at the tip of a single flowering stalk. It likes shady relatively moist places such as along lower Emerald Pools trail.

<u>Erysimum asperum</u> **WESTERN WALLFLOWER** *Mustard Family* This plant may be a foot tall or occasionally more, generally unbranched; its large clusters of bright yellow four-petaled flowers have a delicate but pleasant lilac scent when newly opened. Larger than <u>Draba</u>, and has leaves on the stem.

Mahonia fremontiiFREMONT BARBERRYBarberry FamilyA shrub with verystiffprickly hollylike leaves and bright yellow flowers -- quite spectacular in flower!It does not occur in the Park, and here is found mainly near the base of Hurricane Mesa about 20miles west of Zion on Highway 9, where visitors coming in from that direction marvel over it.

<u>Mahonia repens</u> A creeping woody plant with hollylike prickly leaves and clusters of small yellow flowers that later become clusters of edible dark blue berries sometimes used (along with apple) to make jelly. But it is neither grape nor holly! It likes shady relatively moist places in the Canyon.

Purshia mexicanaCLIFFROSE or QUININE BUSHRose FamilyThis shrub is generally rather small in Zion; but occasionally quite large, and with shaggy bark ratherlike a juniper. The leaves are small and 5-lobed leaves with a bitter taste that gives it one of itscommon names. The flowers are light yellow, with 5 petals, 5 pistils which later elongate into very longplumose styles, and many stamens. Closely related and very similar is

Purshia tridentata, **ANTELOPE BITTERBRUSH**, which can be distinguished by its larger 3-lobed leaves and single pistil.

<u>Shepherdia rotundifolia</u> **ROUNDLEAF BUFFALOBERRY** Oleaster Family The very silvery, rounded, cupped leaves of this shrub (lessond in how to conserve water) are much more conspicuous than its small yellow flowers. The small white berries appear after blooming.

<u>Sphaeralcea grossulariifolia</u> **GOOSEBERRYLEAF GLOBEMALLOW** Mallow Family A typical orange globemallow generally of one or a few stems and loose elongate many-flowered heads, found on rocky slopes. The leaves are deeply cleft, parted, and toothed, easily distinguishing it from

<u>S. ambigua</u>, **DESERT HOLLYHOCK**, whose leaves are much less cleft, resembling small cultivated hollyhock leaves. It is often quite bushy, and is found mainly in the lower elevations.

<u>S. coccinea</u>, **SCARLET GLOBEMALLOW**, has leaves somewhat more cleft than <u>ambigua</u>, but less than <u>grossulariifolia</u>.

# **OTHER COLORS, OR INCONSPICUOUS**

Acer grandidentatumBIGTOOTH MAPLEMaple FamilyA rather large shrub with typical maple leaves, and is responsible for much of our fantastic fall color in<br/>October. Likes relatively cool shady places such as the Emerald Pools trail, or Clear Creek on Zion's<br/>east side. Flowers are relatively few & very inconspicuous. It has typical 2-winged maple seed pods.

# Juniperus spp.

JUNIPER

### Cypress Family

Pines and Junipers do not really flower; they produce their seeds in cones. The brownish tips on the branches of the junipers now are the male cones, filled with pollen. Soon the fleshy bluish-gray female cones, commonly called "Juniper berries", will begin to develop. (The female ones visible on some of the trees now are last year's crop.) We have two species:

<u>Juniperus osteosperma</u> **UTAH JUNIPER**: relatively small, but sturdy-looking. We have LOTS of these!

<u>Juniperus scopulorum</u> **ROCKY MOUNTAIN JUNIPER**: larger but much more delicate-looking, with smaller leaves. Found in relatively cool, shady places such as north-facing slopes in Emerald Pools Canyon.

# TREES

Many of our trees are deciduous, and most of the deciduous ones are wind-pollinated. This means that the flowers are usually pretty "basic", often consisting only of a stamen and/or a pistil; these are generally not showy. They include:

<u>Acer negundo</u> var. <u>interior</u> **BOXELDER** *Maple Family* : with rather mapley leaves. The flowers are the odd-looking stringy reddish things you see hanging down. They are soon followed by the typical two-winged maple seed pods.

<u>Fraxinus velutina</u> **VELVET ASH** *Olive Family*: with compound leaves having usually 5 or 7 leaflets. Ashes have single winged seed pods (shaped rather like a long teardrop).

<u>Populus fremontii</u> **FREMONT COTTONWOOD** *Willow Family*: found mainly along the Virgin River; The leaves are shaped rather like those of the closely related **quaking aspen**, but are much wider. In a few weeks, the air will be filled with the fluffy tufts of "cotton" bearing the seeds; it can look almost like a spring snowstorm!

Betula occidentalis **WATER BIRCH** *Birch Family*: also found along watercourses; leaves doubly serrated, dark green; flowers brownish, in long drooping catkins

The <u>fruit trees</u> you see blooming this time of year (mainly in Watchman Campground, which was a pioneer orchard), include cherry, peach, apricot, apple, and pear. Also a few almonds across the highway from the Visitor Center.

by Margaret Malm

# 3 April 11, 2003

# Zion National Park

# What's up --and Blooming?

We're having a really good flower bloom this year, at least so far. Finally got a little rain at just the right time. We'll need more, though, if the season is to continue like this. Y'all practice up on your rain dances!

<u>All these flowers can be seen from the roads and trails!</u> We want you to enjoy the flowers; photograph them, tell them you love them, BUT please stay on the roads and trails so that you do not trample the plants and/or compact the soil, thus destroying what you seek to admire. Left unmolested, others may

also enjoy them, and they can reproduce and still be there for future generations to enjoy and study; and the wildlife will still have the habitat and food upon which their lives depend.

**NOTE:** Pictures are available for most of the listed species. To see pictures, click on the Pictures by color section and click on the category of interest. (Photographs may not be used without permission!)

# VARIABLE-COLORED FLOWERS

Erigeron pumilusEARLY WHITE DAISYSunflower FamilyAn early bloomer, somewhat spreading, with rather narrow leaves; both they and the stems rather<br/>hairy. Typical daisy flowers, with many rays in several layers; usually light pink or bluish, rather than<br/>white, despite the name. Look for it in the lower areas of Zion Canyon.

# WHITE FLOWERS

Astragalus praelongus **RATTLEWEED or STINKING MILKVETCH** *Pea Family* The leaves are the usual compound pea leaves, with dark green leaflets; the flowers are typical long narrow Astragalus ones. The seeds in the short fat pods rattle when dried, giving it its common name. It usually grows on seleniferous soil and absorbs the selenium, giving it a strong rank odor and making it quite poisonous; a mouthful or two can kill a cow in a few hours. Found mostly on the slopes and flats of the lower Canyon. A plant with very similar flowers, but low, spreading, and smaller overall except for flower size, and with spines on the stem, is

Peteria thompsonae, THOMPSON PETERIA, found mainly along the Watchman Trail.

Amelanchier utahensisUTAH SERVICEBERRYRose FamilyA large deciduous shrub, with white flowers that come out along with the leaves in early spring, quite<br/>showy in full bloom, and it's really doing itself proud this year. Its small roundish leaves have serrated<br/>tips. The berries are rather small and dry, not much good for food (in contrast to the Saskatoon, found<br/>at higher elevations), but Indians made arrow shafts from the branches. Mostly on the dry slopes in<br/>Zion Canyon.

Lycium andersonii ANDERSON WOLFBERRY, WATERJACKET Potato Family A stout spiny freely-branched whitish-barked shrub; the trumpet-shaped flowers are white, but often have bluish or lavendar lobes. The leaves, especially during blooming time, are very fat -almost cylindrical.

Lycium pallidum **TOMATILLA or WOLFBERRY** Potato or Nightshade Family A stout spiny crookedly-branched shrub; the trumpet-shaped flowers are in the leaf axils and often quite greenish, especially at first. The berries are relished by birds and small animals and were plainly eaten also by early Indians, as the plant is often found among Anasazi ruins. Found in Zion on the floodplains of the lower Canyon.

Montia perfoliataMINER'S LETTUCEPurslane FamilyThe stems of the small white flowers of this small ground-hugging plant go right up through the<br/>centers of the round leaves. A good source of Vitamin C, miners used the plants in salads to prevent<br/>Scurvy. It likes shady relatively moist areas.

# PINK TO RED OR RED-VIOLET FLOWERS

<u>Arabis holboellii</u> & <u>Arabis perennans</u> **ROCKCRESS** *Mustard Family* One or a few long skinny stems arise from a rosette of basal leaves; the pink to red-violet flowers are rather widely spaced along the upper stem. Stem leaves long and narrow, with a short ear extending

8

back around the stem on each side at the base. These two species very closely related and apparently hybridize, so impossible to tell apart without fruits (sometimes not even then).

<u>Astragalus zionis</u>

ZION MILKVETCH

Pea Family

A low spreading plant having compound leaves with many pairs of opposite rather silvery (and hairy) leaflets. Its flowers are typical pea ones, red violet with white markings in the throat. Very attractive! Look for it in sandy spots from Coalpits Wash up into the slickrock; one of our earliest bloomers. Astragalus argophyllus, SILVER-LEAVED MILKVETCH, is very similar & nearly impossible to distinguish until the seed pods appear, but prefers higher elevations with better soil.

<u>Erodium cicutarium</u> **RED-STEMMED FILAREE** *Geranium Family* A ground-cover plant often found in disturbed areas. The flowers are small, red-violet, and are followed by typical long narrow "stork's bill" seed pods. A favorite food of the endangered Desert Tortoise. Common on the Canyon bottom for most of the year but most prolific in spring.

Castilleja species

PAINTBRUSH

Snapdragon Family

The traditional "Indian Paintbrush" of one or a few stems and bright red (on ours) "flowers", which are actually bracts (specialized leaves). The flowers are the pointy green things sometimes seen protruding slightly from inside the bracts. Just starting to strut their stuff now.

<u>Castilleja chromosa</u>, **EARLY PAINTBRUSH**, has bright scarlet "flowers". It is usually the first of our paintbrushes to bloom, and really brightens the landscape. The foliage is also reddish, especially early in the season.

<u>Castilleja scabrida</u>, **SLICKROCK PAINTBRUSH**, grows out of slickrock crevices; look for it on the east side of Zion.

<u>Castilleja linearifolia</u>, **WYOMING PAINTBRUSH**, has orange-red "flowers"; it starts blooming in the spring, continues through the summer and into the fall, by which time it has usually become quite tall and gangly. Found mostly in Zion Canyon.

<u>Echinocereus triglochidiatus</u> **CLARET CUP** Cactus Family Cacti look fearsome (and really are, if you get tangled up with them in the wrong way!), but they do have particularly attractive flowers. A hedgehog cactus with large clusters of globular or cylindric stems and showy very bright scarlet flowers. Found in sandy sometimes rocky areas.

<u>Dodecatheon pulchellum</u> var. <u>zionensis</u> **ZION SHOOTING STAR** *Primrose Family* The unusual down-pointing pink flowers resembling shooting stars give this plant its common name. The variety found in Zion is particularly large and attractive. Found in hanging gardens. Usually blooming best in mid-to-late May, but we have a few "early birds" at the lower Emerald Pool.

Lathyrus brachycalyx var. zionis ZION SWEETPEA Pea Family The attractive deep pink flowers look like those of the cultivated sweetpeas, and sometimes when young also have the same marvelous aroma. A low plant found clambering with its tendrils on sunny rocky hillsides or disturbed roadsides.

<u>Penstemon utahensis</u> **UTAH PENSTEMON** Snapdragon Family Beautiful long velvety-red trumpet-shaped ruby red (hummingbird-pollinated) flowers that sometimes almost seem to glow, are the trademark of our earliest-blooming penstemon. Its leaves are rather narrow.

Phacelia fremontiiFREMONT PHACELIAWaterleaf FamilyA tiny plant with small deeply-lobed leaves and lovely purplish-blue flowers with a yellow center. Often<br/>only one flower per plant. Found in the lower elevations in Zion, crouching in the duff and shade of<br/>shrubs. Plentiful and forming purple & yellow mats if there has been plenty of rain,, otherwise scarce;<br/>a real joy to the spirit.

Rumex crispus	WILD RHUBARB, CURLY DOCK	Buckwheat Family
---------------	--------------------------	------------------

The rusty-reddish flowers of this plant are small, many, and funny-looking. The leaves are typical rhubarb type with wavy crisped edges; their petioles (the edible "stems") are shorter than on the cultivated ones but can be used in the same way. Found in the flats in the lower Canyon.

# **BLUE OR PURPLE FLOWERS**

Chorispora tenellaMUSK MUSTARDMustard FamilyA small plant with blue-purple four-petaled flowers. Tends to have a musky scent, although this is<br/>usually hard to pick up. Found in disturbed area along trails and floodplain meadows in the canyon<br/>bottom.

# YELLOW OR ORANGE FLOWERS

Baileya multiradiataDESERT MARIGOLDComposite FamilyThe very white foliage of this plant is due to its being covered by a mat of white hair. The 25-50 wide<br/>layered ray flowers and many disk flowers are bright yellow; usually a single flower head per stem.<br/>Found at the lower elevations such as the lower Watchman Trail; a showy 3-season bloomer.

<u>Cryptantha confertiflora</u> **YELLOW FORGET-ME-NOT** Borage Family A quite hairy plant with narrow green leaves and small bright yellow flowers in a "scorpion's tail" head. Look for it especially along the Watchman Trail and in Coalpits Wash in early spring.

Draba asprella var. zionensis **EARLY DRABA** *Mustard Family* This dainty mustard has its leaves all in a little rosette at the base of the plant, and a small cluster of bright yellow 4-petaled flowers at the tip of a single flowering stalk. It likes shady relatively moist places such as along lower Emerald Pools trail.

<u>Erysimum asperum</u> **WESTERN WALLFLOWER** *Mustard Family* This plant may be a foot tall or occasionally more, generally unbranched; its large clusters of bright yellow four-petaled flowers have a delicate but pleasant lilac scent when newly opened. Larger than <u>Draba</u>, and has leaves on the stem.

Mahonia fremontiiFREMONT BARBERRYBarberry FamilyA shrub with verystiffprickly hollylike leaves and bright yellow flowers -- quite spectacular in flower!It does not occur in the Park, and here is found mainly near the base of Hurricane Mesa about 20miles west of Zion on Highway 9, where visitors coming in from that direction marvel over it.

<u>Mahonia repens</u> **OREGON GRAPE, CREEPING HOLLYGRAPE** Barberry Family A creeping woody plant with hollylike prickly leaves and clusters of small yellow flowers that later become clusters of edible dark blue berries sometimes used (along with apple) to make jelly. But it is neither grape nor holly! It likes shady relatively moist places in the Canyon.

Purshia mexicanaCLIFFROSE or QUININE BUSHRose FamilyThis shrub is generally rather small in Zion; but occasionally quite large, and with shaggy bark rather<br/>like a juniper. The leaves are small and 5-lobed leaves with a bitter taste that gives it one of its<br/>common names. The flowers are light yellow, with 5 petals, 5 pistils which later elongate into very long<br/>plumose styles, and many stamens. Closely related and very similar is<br/>Purshia tridentata, ANTELOPE BITTERBRUSH, which can be distinguished by its larger 3-lobed<br/>leaves and single pistil.

<u>Shepherdia rotundifolia</u> **ROUNDLEAF BUFFALOBERRY** Oleaster Family The very silvery, rounded, cupped leaves of this shrub (lessond in how to conserve water) are much more conspicuous than its small yellow flowers. The small white berries appear after blooming.

### Stanleya pinnata

PRINCES' PLUME

Mustard Family

A large subshrub, woody at the base, this one is quite showy in bloom; with long plumes of narrow

9

yellow flowers quite different from typical mustard ones. It grows on shales and mudstones, only in soil that contains the element selenium, so is poisonous to wildlife and cattle as well as humans. No munching!

<u>Sphaeralcea grossulariifolia</u> **GOOSEBERRYLEAF GLOBEMALLOW** Mallow Family A typical orange globemallow generally of one or a few stems and loose elongate many-flowered heads, found on rocky slopes. The leaves are deeply cleft, parted, and toothed, easily distinguishing it from

<u>S. ambigua</u>, **DESERT HOLLYHOCK**, whose leaves are much less cleft, resembling small cultivated hollyhock leaves. It is often quite bushy, and is found mainly in the lower elevations.

S. coccinea, SCARLET GLOBEMALLOW, has leaves somewhat more cleft than <u>ambigua</u>, but less than <u>grossulariifolia</u>.

# OTHER COLORS, OR INCONSPICUOUS

Juniperus spp.

JUNIPER

Cypress Family

Pines and Junipers do not really flower; they produce their seeds in cones. The brownish tips on the branches of the junipers now are the male cones, filled with pollen. Soon the fleshy bluish-gray female cones, commonly called "Juniper berries", will begin to develop. (The female ones visible on some of the trees now are last year's crop.) We have two species:

<u>Juniperus osteosperma</u> **UTAH JUNIPER**: relatively small, but sturdy-looking. We have LOTS of these!

<u>Juniperus scopulorum</u> **ROCKY MOUNTAIN JUNIPER**: larger but much more delicate-looking, with smaller leaves. Found in relatively cool, shady places such as north-facing slopes in Emerald Pools Canyon.

# TREES

Many of our trees are deciduous, and most of the deciduous ones are wind-pollinated. This means that the flowers are usually pretty "basic", often consisting only of a stamen and/or a pistil; these are generally not at all showy. They include:

<u>Acer negundo</u> var. <u>interior</u> **BOXELDER** *Maple Family* : with rather maple-y leaves. The flowers are the odd-looking stringy reddish things you see hanging down. They are soon followed by the typical two-winged maple seed pods.

<u>Fraxinus velutina</u> **VELVET ASH** *Olive Family*: with compound leaves having usually 5 or 7 leaflets. Ashes have single winged seed pods (shaped rather like a long teardrop).

<u>Populus fremontii</u> **FREMONT COTTONWOOD** *Willow Family*: found mainly along the Virgin River; The leaves are shaped rather like those of the closely related **quaking aspen**, but are much wider. In a few weeks, the air will be filled with the fluffy tufts of "cotton" bearing the seeds; it can look almost like a spring snowstorm!

Betula occidentalis **WATER BIRCH** *Birch Family*: also found along watercourses; leaves doubly serrated, dark green; flowers brownish, in long drooping catkins

The <u>fruit trees</u> you see blooming this time of year (mainly in Watchman Campground, which was a pioneer orchard), include cherry, peach, apricot, apple, and pear. Also a few almonds across the highway from the Visitor Center.

by Margaret Malm

# 4 April 24, 2003

# Zion National Park

# What's up -- and Blooming?

We're having a really good flower bloom this year, at least so far. Finally got a little rain at just the right time. We'll need more, though, if the season is to continue like this. Y'all practice up on your rain dances!

All these flowers can be seen from the roads and trails! We want you to enjoy the flowers; photograph them, tell them you love them, BUT please stay on the roads and trails so that you do not trample the plants and/or compact the soil, thus destroying what you seek to admire. Left unmolested, others may also enjoy them, and they can reproduce and still be there for future generations to enjoy and study; and the wildlife will still have the habitat and food upon which their lives depend.

**NOTE:** Pictures are available for most of the listed species. To see pictures, click on the Pictures by color section and click on the category of interest. (Photographs may not be used without permission!)

# VARIABLE-COLORED FLOWERS

EARLY WHITE DAISY Sunflower Family Erigeron pumilus An early bloomer, somewhat spreading, with rather narrow leaves; both they and the stems rather hairy. Typical daisy flowers, with many rays in several layers; usually light pink or bluish, rather than white, despite the name. Look for it in the lower areas of Zion Canyon.

# WHITE FLOWERS

RATTLEWEED or STINKING MILKVETCH Pea Familv Astragalus praelongus The leaves are the usual compound pea leaves, with dark green leaflets; the flowers are typical long narrow Astragalus ones. The seeds in the short fat pods rattle when dried, giving it its common name. It usually grows on seleniferous soil and absorbs the selenium, giving it a strong rank odor and making it guite poisonous; a mouthful or two can kill a cow in a few hours. Found mostly on the slopes and flats of the lower Canyon. A plant with very similar flowers, but low, spreading, and smaller overall except for flower size, and with spines on the stem, is

Peteria thompsonae, **THOMPSON PETERIA**, found mainly along the Watchman Trail.

# Amelanchier utahensis

UTAH SERVICEBERRY

Rose Family A large deciduous shrub, with white flowers that come out along with the leaves in early spring, quite showy in full bloom, and it's really doing itself proud this year. Its small roundish leaves have serrated tips. The berries are rather small and dry, not much good for food (in contrast to the Saskatoon, found at higher elevations), but Indians made arrow shafts from the branches. Mostly on the dry slopes in Zion Canyon.

Lycium pallidum TOMATILLA or WOLFBERRY Potato or Nightshade Family A stout spiny crookedly-branched shrub; the trumpet-shaped flowers are in the leaf axils and often quite greenish, especially at first. The berries are relished by birds and small animals and were plainly eaten also by early Indians, as the plant is often found among Anasazi ruins. Found in Zion on the floodplains of the lower Canyon.

# Oenothera species

# EVENING PRIMROSE

Evening Primrose

Family

Flowers have four large petals, open in the evening, closing (permanently) the next morning soon after then sun hits them. The spent blossoms generally age pink. They prefer sandy areas in Zion. O. caespitosa, WHITE TUFTED EVENING PRIMROSE: has short leafless stems arising from a basal tuft of leaves, each stem bearing a large very showy single white flower. Usually at the higher elevations such as the slickrock.

O. pallida, PALE EVENING PRIMROSE: a more spreading plant, with smaller white flowers and leafy

stems. Often found still blooming in the slickrock well into summer.

Montia perfoliata MINER'S LETTUCE Purslane Family The stems of the small white flowers of this small ground-hugging plant go right up through the centers of the round leaves. A good source of Vitamin C, miners used the plants in salads to prevent Scurvy. It likes shady relatively moist areas; the slopes of the Emerald Pools trails are carpeted with it this year.

# PINK TO RED OR RED-VIOLET FLOWERS

Arabis holboellii & Arabis perennans ROCKCRESS Mustard Family One or a few long skinny stems arise from a rosette of basal leaves; the pink to red-violet flowers are rather widely spaced along the upper stem. Stem leaves long and narrow, with a short ear extending back around the stem on each side at the base. These two species are very closely related and apparently hybridize, so impossible to tell apart without fruits (sometimes not even then).

# Astragalus zionis

**ZION MILKVETCH** A low spreading plant having compound leaves with many pairs of opposite rather silvery (and hairy) leaflets. Its flowers are typical pea ones, red violet with white markings in the throat. Very attractive! Look for it in sandy spots from Coalpits Wash up into the slickrock; one of our earliest bloomers. Astragalus argophyllus, SILVER-LEAVED MILKVETCH, is very similar & nearly impossible to distinguish until the seed pods appear, but prefers higher elevations with better soil.

### Erodium cicutarium

### **RED-STEMMED FILAREE**

A ground-cover plant often found in disturbed areas. The flowers are small, red-violet, and are followed by typical long narrow "stork's bill" seed pods. A favorite food of the endangered Desert Tortoise. Common on the Canyon bottom for most of the year but most prolific in spring.

### Castilleja species

### PAINTBRUSH

The traditional "Indian Paintbrush" of one or a few stems and bright red (on ours) "flowers", which are actually bracts (specialized leaves). The flowers are the pointy green things sometimes seen protruding slightly from inside the bracts . Just starting to strut their stuff now.

Castilleja chromosa, EARLY PAINTBRUSH, has bright scarlet "flowers". It is usually the first of our paintbrushes to bloom, and really brightens the landscape. The foliage is also reddish, especially early in the season.

Castilleja scabrida, SLICKROCK PAINTBRUSH, grows out of slickrock crevices; look for it on the east side of Zion.

Castilleia linearifolia. WYOMING PAINTBRUSH, has orange-red "flowers": it starts blooming in the spring, continues through the summer and into the fall, by which time it has usually become guite tall and gangly. Found mostly in Zion Canyon.

**CLARET CUP** Echinocereus triglochidiatus Cacti look fearsome (and really are, if you get tangled up with them in the wrong way!), but they do have particularly attractive flowers. A hedgehog cactus with large clusters of globular or cylindric stems and showy very bright scarlet flowers. Found in sandy sometimes rocky areas.

**ZION SHOOTING STAR** Dodecatheon pulchellum var. zionensis Primrose Family The unusual down-pointing pink flowers resembling shooting stars give this plant its common name. The variety found in Zion is particularly large and attractive. Found in hanging gardens. Usually blooming best in mid-to-late May, but we have a few "early birds" at the lower Emerald Pool.

#### Lathyrus brachycalyx var. zionis **ZION SWEETPEA** Pea Family

The attractive deep pink flowers look like those of the cultivated sweetpeas, and sometimes when young also have the same marvelous aroma. A low plant found clambering with its tendrils on sunny

# Pea Family

Geranium Family

Snapdragon Family

Cactus Family

rocky hillsides or disturbed roadsides.

# Phacelia fremontiiFREMONT PHACELIAWaterleaf FamilyA tiny plant with small deeply-lobed leaves and lovely purplish-blue flowers with a yellow center. Often<br/>only one flower per plant. Found in the lower elevations in Zion, crouching in the duff and shade of<br/>shrubs. Plentiful and forming purple & yellow mats if there has been plenty of rain, otherwise scarce; a<br/>real joy to the spirit.

<u>Penstemon eatonii</u> This one's flowers are long, tubular scarlet ones with hardly any flare at the mouth, and relatively wide shiny green opposite leaves. It flowers a little later than <u>P. utahensis</u>, giving the hummingbird pollinators a longer season. One parent of the hybrid Jones Penstemon.

<u>Penstemon utahensis</u> **UTAH PENSTEMON** *Snapdragon Family* Beautiful long velvety-red trumpet-shaped ruby red (hummingbird-pollinated) flowers that sometimes almost seem to glow, are the trademark of our earliest-blooming penstemon. Its leaves are rather narrow.

 Phlox austromontana
 DESERT PHLOX
 Phlox Family

 Usually a compact rounded mound (var. austromontana, DESERT PHLOX), or sometimes looser and cascading over cliffs and ledges (var. jonesii, ZION CANYON PHLOX); its leaves are very narrow but not particularly prickly. Flowers are white to deep pink, often several colors on the same plant at the same time, fading as the flowers age. Rocky areas, generally in sand.

Rumex crispusWILD RHUBARB, CURLY DOCKBuckwheat FamilyThe rusty-reddish flowers of this plant are small, many, and funny-looking. The leaves are typicalrhubarb type with wavy crisped edges; their petioles (the edible "stems") are shorter than on thecultivated ones but can be used in the same way. Found in the flats in the lower Canyon.

# **BLUE OR PURPLE FLOWERS**

<u>Chorispora tenella</u> **MUSK MUSTARD** *Mustard Family* A small plant with blue-purple four-petaled flowers. Tends to have a musky scent, although this is usually hard to pick up. Found in disturbed area along trails and floodplain meadows in the canyon bottom.

<u>Dichelostemma pulchellum</u> This one grows, in sandy soil, from a small bulb, and. A single long leafless stem arises from the long narrow grasslike leaves typical of the family, with a small cluster of pretty blue flowers at its tip, each flower with 3 petals, and 3 petaloid sepals (sepals that look like petals). Sandy soils, often found growing up through shrubs that shelter them.

Linum perenne ssp. lewisii LEWIS FLAX Flax Family The 5-petaled light blue -- with darker blue stripes -- flowers of this plant have a rather delicate appearance and do not last long, but the stems are quite tough and fibrous, as flax stems are. The plant has been used medicinally, as well as for food, and the fibers from the stems for making such things as cord and fishing lines. Canyon to slickrock.

<u>Penstemon laevis</u> The blue parent of our hybrid JONES PENSTEMON, it is considerably fatter than the other parent, EATON PENSTEMON; but not as fat as the PALMER PENSTEMON. It is found mainly in the slickrock, in sandy areas.

<u>Salvia dorrii</u> **PURPLE or DESERT SAGE** *Mint Family* A relatively small shrub with small silvery leaves having a distinct and delicious minty sage smell, The unusual and particularly beautiful bright blue flowers nestle in purple bracts; quite spectacular in Cryptantha confertiflora YELLOW FORGET-ME-NOT Borage Family A quite hairy plant with narrow green leaves and small bright yellow flowers in a "scorpion's tail" head. Look for it especially along the Watchman Trail and in Coalpits Wash in early spring.

This annual is usually only a foot or so high, but can get larger. The golden yellow flowers open during the day. Leaves are mainly basal, unusual in shape -- deeply lobed, clear in to the petiole at the stem

**DESERT DAY PRIMROSE, SUNDROPS** Evening Primrose

EARLY DRABA Draba asprella var. zionensis This dainty mustard has its leaves all in a little rosette at the base of the plant, and a small cluster of bright yellow 4-petaled flowers at the tip of a single flowering stalk. It likes shady relatively moist places such as along lower Emerald Pools trail.

# Erysimum asperum

flower!. Found on dry canyon slopes and flats.

end. Deserty areas; check out Watchman Trail.

YELLOW OR ORANGE FLOWERS

Baileya multiradiata

Camissonia brevipes

Family

This plant may be a foot tall or occasionally more, generally unbranched; its large clusters of bright yellow four-petaled flowers have a delicate but pleasant lilac scent when newly opened. Larger than Draba, and has leaves on the stem and flowers in clusters.

WESTERN WALLFLOWER

Gaillardia spp. BLANKETFLOWER Composite Family We have several species here, some rather difficult to tell apart, as they've hybridized. Up to about a foot tall, yellow rays and usually dark brown disk. Found mainly along the highway around the Visitor Center and east to the bridge over the Virgin River. Rather pretty and cheerful. The most common species is G. spathulata.

**OREGON GRAPE, CREEPING HOLLYGRAPE** Mahonia repens Barberry Family A creeping woody plant with hollylike prickly leaves and clusters of small yellow flowers that later become clusters of edible dark blue berries sometimes used (along with apple) to make jelly. But it is neither grape nor holly! It likes shady relatively moist places in the Canyon.

**CLIFFROSE or QUININE BUSH** Rose Family Purshia mexicana This shrub is generally rather small in Zion; but occasionally guite large, and with shaggy bark rather like a juniper. The leaves are small and 5-lobed leaves with a bitter taste that gives it one of its common names. The flowers are light yellow, with 5 petals, 5 pistils which later elongate into very long plumose styles, and many stamens. Closely related and very similar is

Purshia tridentata, ANTELOPE BITTERBRUSH, which can be distinguished by its larger 3-lobed leaves, and smaller flowers with a single pistil.

# Stanleya pinnata

# PRINCES' PLUME

A large subshrub, woody at the base, this one is quite showy in bloom; with long plumes of narrow yellow flowers quite different from typical mustard ones. It grows on shales and mudstones, only in soil that contains the element selenium, so is poisonous to wildlife and cattle as well as humans. No munching!

**GOOSEBERRYLEAF GLOBEMALLOW** Sphaeralcea grossulariifolia Mallow Family A typical orange globemallow generally of one or a few stems and loose elongate many-flowered heads, found on rocky slopes. The leaves are deeply cleft, parted, and toothed, easily distinguishing it

# April 24, 2003

14

DESERT MARIGOLD The very white foliage of this plant is due to its being covered by a mat of white hair. The 25-50 wide layered ray flowers and many disk flowers are bright yellow; usually a single flower head per stem.

Found at the lower elevations such as the lower Watchman Trail; a showy 3-season bloomer.

Composite Family

Mustard Family

# Mustard Family

Mustard Family

from

<u>S. ambigua</u>, **DESERT HOLLYHOCK**, whose leaves are much less cleft, resembling small cultivated hollyhock leaves. It is often quite bushy, and is found mainly in the lower elevations. <u>S. coccinea</u>, **SCARLET GLOBEMALLOW**, has leaves somewhat more cleft than <u>ambigua</u>, but less than <u>grossulariifolia</u>.

# 5 May 3, 2003

# **Zion National Park**

# May 3, 2003

We started off with a really good early flower bloom this year, with a little moisture and warm weather. But alternating warm & cold weather have apparently confused the later-blooming species time.

<u>All these flowers can be seen from the roads and trails!</u> We want you to enjoy the flowers; photograph them, tell them you love them, BUT please stay on the roads and trails so that you do not trample the plants and/or compact the soil, thus destroying what you seek to admire. Left unmolested, others may also enjoy them, and they can reproduce and still be there for future generations to enjoy and study; and the wildlife will still have the habitat and food upon which their lives depend.

**NOTE:** Pictures are available for most of the listed species. To see pictures, click on the Pictures by color section and click on the category of interest. (Photographs may not be used without permission!)

# VARIABLE-COLORED FLOWERS

<u>Calochortus</u> spp. **MARIPOSA LILY** The flowers of this plant have three large petals, each with a colorful circular generally hairy "gland" at its base. Leaves are few, long and narrow, and all at the base. Our three species generally found in dry places.

<u>C. nuttallii</u> **SEGO LILY:** The creamy white flowers of the sego lily crown straight erect leafless stems; the three large petals are a creamy white, with a colorful circular hairy "gland" at the base of each. *Utah's State Flower.* 

<u>C. flexuosus</u> **BENTSTEM MARIPOSA**: the pink flowers are on the tips of bent or kinked stems; these often very looooong and growing up through a shrub (such as blackbrush) to get the flowers up in the sun.

<u>C. aureus</u> **GOLDEN MARIPOSA**: has bright golden yellow flowers. It likes the Bentonite clay in the Chinle Formation, so is occasionally found on the Chinle trail, in years with the right growing conditions (but it's mighty particular!).

Erigeron pumilus

**EARLY WHITE DAISY** 

Sunflower Family

An early bloomer, somewhat spreading, with rather narrow leaves; both they and the stems rather hairy. Typical daisy flowers, with many rays in several layers; usually light pink or bluish, rather than white, despite the name. Look for it mainly in the lower areas of Zion Canyon.

WHITE FLOWERS	WHI	TE F	FLO	WERS	;
---------------	-----	------	-----	------	---

Family

<u>Abronia fragrans</u>	FRAGRANT SAND VERBENA	Pc

Potato or Nightshade

Evening Primrose

The unusual hemispheric clusters of trumpet-shaped white flowers radiating from a central point. along with a very pleasant fragrance when young (designed to attract night-flying pollinators) are generally enough to make it easy to pick this one out. It is definitely worth stooping to smell! Found in sandy areas, especially in the slickrock.

Astragalus praelongus RATTLEWEED or STINKING MILKVETCH Pea Family The leaves are the usual compound pea leaves, with dark green leaflets; the flowers are typical long narrow Astragalus ones. The seeds in the short fat pods rattle when dried, giving it its common name. It usually grows on seleniferous soil and absorbs the selenium, giving it a strong rank odor and making it quite poisonous; a mouthful or two can kill a cow in a few hours. Found mostly on the slopes and flats of the lower Canyon. A plant with very similar flowers, but low, spreading, and smaller overall except for flower size, and with spines on the stem, is

Peteria thompsonae, THOMPSON PETERIA, found mainly along the Watchman Trail.

# Amelanchier utahensis

**UTAH SERVICEBERRY** 

Rose Family

A large deciduous shrub, with white flowers that come out along with the leaves in early spring, quite showy in full bloom, and it's really doing itself proud this year. Its small roundish leaves have serrated tips. The berries are rather small and dry, not much good for food (in contrast to the Saskatoon, found at higher elevations), but Indians made arrow shafts from the branches. Now blooming best on the east side of Zion.

#### Oenothera species EVENING PRIMROSE

Familv

Flowers have four large petals, open in the evening, closing (permanently) the next morning soon after then sun hits them. The spent blossoms generally age pink. They prefer sandy areas in Zion. O. caespitosa, WHITE TUFTED EVENING PRIMROSE: has short leafless stems arising from a basal tuft of leaves, each stem bearing a large very showy single white flower. Usually at the higher elevations such as the slickrock.

O. pallida, **PALE EVENING PRIMROSE**: a more spreading plant, with smaller white flowers and leafy stems. Often found still blooming in the slickrock well into summer.

# Montia perfoliata

# **MINER'S LETTUCE**

Purslane Family The stems of the small white flowers of this small ground-hugging plant go right up through the centers of the round leaves. A good source of Vitamin C, miners used the plants in salads to prevent Scurvy. It likes shady relatively moist areas; the slopes of the Emerald Pools trails are carpeted with it this year.

# PINK TO RED OR RED-VIOLET FLOWERS

ROCKCRESS Mustard Family Arabis holboellii & Arabis perennans One or a few long skinny stems arise from a rosette of basal leaves; the pink to red-violet flowers are rather widely spaced along the upper stem. Stem leaves long and narrow, with a short ear extending back around the stem on each side at the base. These two species are very closely related and apparently hybridize, so impossible to tell apart without fruits (sometimes not even then).

# Astragalus zionis

**ZION MILKVETCH** 

Pea Family A low spreading plant having compound leaves with many pairs of opposite rather silvery (and hairy) leaflets. Its flowers are typical pea ones, red violet with white markings in the throat. Very attractive! Look for it in sandy spots from Coalpits Wash up into the slickrock; one of our earliest bloomers. Astragalus argophyllus, SILVER-LEAVED MILKVETCH, is very similar & nearly impossible to distinguish until the seed pods appear, but prefers higher elevations with better soil.

Erodium cicutarium **RED-STEMMED FILAREE** Geranium Family A ground-cover plant often found in disturbed areas. The flowers are small, red-violet, and are followed by typical long narrow "stork's bill" seed pods. A favorite food of the endangered Desert Tortoise. Common on the Canyon bottom for most of the year but most prolific in spring; a bumper crop this year.

### Castilleja species PAINTBRUSH

Snapdragon Family

The traditional "Indian Paintbrush" of one or a few stems and bright red (on ours) "flowers", which are actually bracts (specialized leaves). The flowers are the pointy green things sometimes seen protruding slightly from inside the bracts

<u>Castilleja chromosa</u>, **EARLY PAINTBRUSH**, has bright scarlet "flowers". It is usually the first of our paintbrushes to bloom, and really brightens the landscape. The foliage is also reddish, especially early in the season.

<u>Castilleja scabrida</u>, **SLICKROCK PAINTBRUSH**, grows out of slickrock crevices; look for it on the east side of Zion. This year they seem to be rather small, but intensely red.

<u>Castilleja linearifolia</u>, **WYOMING PAINTBRUSH**, has orange-red "flowers"; it starts blooming in the spring, continues through the summer and into the fall, by which time it has usually become quite tall and gangly. Found mostly in Zion Canyon.

<u>Echinocereus triglochidiatus</u> **CLARET CUP** *Cactus Family* Cacti look fearsome (and really are, if you get tangled up with them in the wrong way!), but they do have particularly attractive flowers. A hedgehog cactus with large clusters of globular or cylindric stems and showy very bright scarlet flowers. Found in sandy or, sometimes, rocky areas.

Phacelia fremontiiFREMONT PHACELIAWaterleaf FamilyA tiny plant with small deeply-lobed leaves and lovely purplish-blue flowers with a yellow center. Often<br/>only one flower per plant. Found in the lower elevations in Zion, crouching in the duff and shade of<br/>shrubs. Plentiful and forming purple & yellow mats if there has been plenty of rain, otherwise scarce; a<br/>real joy to the spirit.

<u>Dodecatheon pulchellum</u> var. <u>zionensis</u> **ZION SHOOTING STAR** *Primrose Family* The unusual down-pointing pink flowers resembling shooting stars give this plant its common name. The variety found in Zion is particularly large and attractive. Found in hanging gardens. Usually blooming best in mid-to-late May, but we have some "early birds" at the lower Emerald Pool.

Lathyrus brachycalyx var. zionis ZION SWEETPEA Pea Family The attractive deep pink flowers look like those of the cultivated sweetpeas, and sometimes when young also have the same marvelous aroma. A low plant found clambering with its tendrils on sunny rocky hillsides or disturbed roadsides.

<u>Penstemon eatonii</u> This one's flowers are long, tubular scarlet ones with hardly any flare at the mouth, and relatively wide shiny green opposite leaves. It flowers a little later than <u>P. utahensis</u>, giving the hummingbird pollinators a longer season. One parent of the hybrid Jones Penstemon.

<u>Penstemon utahensis</u> **UTAH PENSTEMON** *Snapdragon Family* Beautiful long velvety-red trumpet-shaped ruby red (hummingbird-pollinated) flowers that sometimes almost seem to glow, are the trademark of our earliest-blooming penstemon. Its leaves are rather narrow.

# Phlox austromontanaDESERT PHLOXPhlox FamilyUsually a compact rounded mound (var. austromontana, DESERT PHLOX), or sometimes looser and<br/>cascading over cliffs and ledges (var. jonesii, ZION CANYON PHLOX); its leaves are very narrow but<br/>not particularly prickly. Flowers are white to deep pink, often several colors on the same plant at the<br/>same time, fading as the flowers age. Rocky areas, generally in sand.

<u>Rumex crispus</u> **WILD RHUBARB, CURLY DOCK** Buckwheat Family The rusty-reddish flowers of this plant are small, many, and funny-looking. The leaves are typical rhubarb type with wavy crisped edges; their petioles (the edible "stems") are shorter than on the cultivated ones but can be used in the same way. Found in the flats in the lower Canyon.

# **BLUE OR PURPLE FLOWERS**

# MUSK MUSTARD

Chorispora tenella Mustard Family A small plant with blue-purple four-petaled flowers. Tends to have a musky scent, although this is usually hard to pick up. Found in disturbed area along trails and floodplain meadows in the canyon bottom.

Dichelostemma pulchellum BLUEDICKS Lily Family This one grows, in sandy soil, from a small bulb. A single long leafless stem arises from the long narrow grasslike leaves typical of the family, with a small cluster of pretty blue flowers at its tip, each flower with 3 petals, and 3 petaloid sepals (sepals that look like petals). Sandy soils, often found growing up through and overtopping tall grasses, and shrubs that shelter them.

#### Linum perenne ssp. lewisii **LEWIS FLAX**

Flax Family The 5-petaled light blue -- with darker blue stripes -- flowers of this plant have a rather delicate appearance and do not last long, but the stems are guite tough and fibrous, as flax stems are. The plant has been used medicinally, as well as for food, and the fibers from the stems for making such things as cord and fishing lines. Canyon to slickrock.

Penstemon laevis ROYAL or SMOOTH PENSTEMON Snapdragon Family The blue parent of our hybrid JONES PENSTEMON, it is considerably fatter than the other parent, EATON PENSTEMON; but not as fat as the PALMER PENSTEMON. It is found mainly in the slickrock, in sandy areas.

PURPLE or DESERT SAGE Salvia dorrii Mint Family A relatively small shrub with small silvery leaves having a distinct and delicious minty sage smell, The unusual and particularly beautiful bright blue flowers nestle in purple bracts; guite spectacular in flower! Found on dry canyon slopes and flats. Just starting to bloom, in the lower elevations.

# YELLOW OR ORANGE FLOWERS

DESERT MARIGOLD Baileya multiradiata Composite Family The very white foliage of this plant is due to its being covered by a mat of white hair. The 25-50 wide layered ray flowers and many disk flowers are bright yellow; usually a single flower head per stem. Found at the lower elevations such as the lower Watchman Trail; a showy 3-season bloomer.

# Camissonia brevipes

# **DESERT DAY PRIMROSE, SUNDROPS** Evening Primrose

Familv

This annual is usually only a foot or so high, but can get larger. The golden yellow flowers open during the day. Leaves are mainly basal, unusual in shape -- deeply lobed, clear in to the petiole at the stem end. Deserty areas; check out Watchman Trail.

YELLOW FORGET-ME-NOT Cryptantha confertiflora Borage Family A guite hairy plant with narrow green leaves and small bright yellow flowers in a "scorpion's tail" head. Look for it especially along the Watchman Trail and in Coalpits Wash in early spring.

# Erysimum asperum

# WESTERN WALLFLOWER

Mustard Family This plant may be a foot tall or occasionally more, generally unbranched; its large clusters of bright yellow four-petaled flowers have a delicate but pleasant lilac scent when newly opened. Larger than Draba, and has leaves on the stem and flowers in clusters.

### Gaillardia spp.

# **BLANKETFLOWER**

Composite Family

We have several species here, some rather difficult to tell apart, as they've hybridized. Up to about a

foot tall, yellow rays and usually dark brown disk. Found mainly along the highway around the Visitor Center and east to the bridge over the Virgin River. Rather pretty and cheerful. The most common species is <u>G. spathulata</u>.

<u>Mahonia repens</u> A creeping woody plant with hollylike prickly leaves and clusters of small yellow flowers that later become clusters of edible dark blue berries sometimes used (along with apple) to make jelly. But it is neither grape nor holly! It likes shady relatively moist places in the Canyon.

Purshia mexicanaCLIFFROSE or QUININE BUSHRose FamilyThis shrub is generally rather small in Zion; but occasionally quite large, and with shaggy bark ratherlike a juniper. The shiny leaves are small and 5-lobed , with a bitter taste that gives it one of itscommon names. The flowers are light yellow, with 5 petals, 5 pistils which later elongate into very longplumose styles, and many stamens. Closely related and very similar isPurshia tridentata, ANTELOPE BITTERBRUSH, which can be distinguished by its larger 3-lobed dull

green leaves, and smaller flowers with a single pistil.

Stanleya pinnataPRINCES' PLUMEMustard FamilyA large subshrub, woody at the base, this one is quite showy in bloom; with long plumes of narrow<br/>yellow flowers quite different from typical mustard ones. It grows on shales and mudstones, only in soil<br/>that contains the element selenium, so is poisonous to wildlife and cattle as well as humans. No<br/>munching!

<u>Sphaeralcea grossulariifolia</u> **GOOSEBERRYLEAF GLOBEMALLOW** Mallow Family A typical orange globemallow generally of one or a few stems and loose elongate many-flowered heads, found on rocky slopes. The leaves are deeply cleft, parted, and toothed, easily distinguishing it from

<u>S. ambigua</u>, **DESERT HOLLYHOCK**, whose leaves are much less cleft, resembling small cultivated hollyhock leaves. It is often quite bushy, and is found mainly in the lower elevations.

<u>S. coccinea</u>, **SCARLET GLOBEMALLOW**, has leaves somewhat more cleft than <u>ambigua</u>, but less than <u>grossulariifolia</u>.

6 May 18, 2003

# Zion National Park

# May 18, 2003

We started off with a really good early flower bloom this year, with a little moisture and warm weather. But alternating warm & cold weather have apparently confused the later-blooming species time. <u>All these flowers can be seen from the roads and trails!</u> We want you to enjoy the flowers; photograph them, tell them you love them, BUT please stay on the roads and trails so that you do not trample the plants and/or compact the soil, thus destroying what you seek to admire. Left unmolested, other people may also enjoy them, and they can reproduce and still be there for future generations to enjoy and study; and the wildlife will still have the habitat and food upon which their lives depend.

**NOTE:** Pictures are available for most of the listed species. To see pictures, click on the Pictures by color section and click on the category of interest. (Photographs may not be used without

permission!)

# VARIABLE-COLORED FLOWERS

Aquilegia species

# COLUMBINE

Buttercup Family Columbines, with their long spurs, have a rather unique shape. They are found in moist to wet generally shady places, so look for them around springs and hanging gardens. Our larger yellowflowered species is

A. chrysantha, GOLDEN COLUMBINE, and the similar but smaller red and yellow one is A. formosa, WESTERN COLUMBINE, which is found in dryer places up above the springs and hanging gardens, & showering its seed down to produce hybrids between the two (with the red looking faded) in wet places.

Calochortus spp. MARIPOSA LILY Lilv Familv The flowers of this plant have three large petals, each with a colorful circular generally hairy "gland" at its base. Leaves are few, long and narrow, and all at the base. Our three species generally found in drv places.

C. nuttalliji **SEGO LILY:** The creamy white flowers of the sego lilv crown straight erect leafless stems: the three large petals are a creamy white, with a colorful circular hairy "gland" at the base of each. Utah's State Flower.

C. flexuosus **BENTSTEM MARIPOSA**: the pink flowers are on the tips of bent or kinked stems; these often very looooong and growing up through a shrub (such as blackbrush) to get the flowers up in the sun.

#### THISTLE Composite Family **Cirsium species** The thistles in Zion all have the typical very prickly thistle foliage. Our two most common are: C. arizonicum, ARIZONA THISTLE, with long narrow bright red flowers clustered together into a cvlindrical bundle.

C. neomexicanum var. utahense, UTAH THISTLE, is a rather gangly plant with dirty-white flowers clustered in a powder-puff shape.

EARLY WHITE DAISY Erigeron pumilus Sunflower Family An early bloomer, somewhat spreading, with rather narrow leaves; both they and the stems rather hairy. Typical daisy flowers, with many rays in several layers; usually light pink or bluish, rather than white, despite the name. Look for it mainly in the lower areas of Zion Canyon.

JONES (HYBRID) PENSTEMON Penstemon X jonesii Snapdragon Family A natural hybrid between the slender scarlet flowered Penstemon eatonii and the fat-blue-flowered Penstemon laevis, this plant has colors ranging from very light pink to dark purple and shapes from narrow to fat. It is found in places where both parents occur, mainly in the slickrock.

GIANT HELLEBORINE Epipactis gigantea Orchid Family This "giant" orchid is giant only in comparison to some of the other wild orchids in Zion. The flowers are pale greenish white, with brownish stripes and/or mottling, and are shaped like the large orchids used in corsages -- but much are smaller. It is found in moist seeps and hanging gardens, and in some places in the Zion Narrows and its side canyons.

# WHITE FLOWERS

Lily Family Smilacina stellata STAR-FLOWERED SOLOMON PLUME Broad leaves with longitudinal veins and a zigzag stem make this water-lover different. The flowers are small and starry.

Abronia fragrans FRAGRANT SAND VERBENA Potato or Nightshade Family The unusual hemispheric clusters of trumpet-shaped white flowers radiating from a central point. along with a very pleasant fragrance when young (designed to attract night-flying pollinators) are generally enough to make it easy to pick this one out. It is definitely worth stooping to smell! Found in

sandy areas, especially in the slickrock.

#### RATTLEWEED or STINKING MILKVETCH Astragalus praelongus Pea Family The leaves are the usual compound pea leaves, with dark green leaflets; the flowers are typical long narrow Astragalus ones. The seeds in the short fat pods rattle when dried, giving it its common name. It usually grows on seleniferous soil and absorbs the selenium, giving it a strong rank odor and making it guite poisonous; a mouthful or two can kill a cow in a few hours. Found mostly on the slopes and flats of the lower Canyon. A plant with very similar flowers, but low, spreading, and smaller overall except for flower size, and with spines on the stem, is

Peteria thompsonae, THOMPSON PETERIA, found mainly along the Watchman Trail.

#### Oenothera species EVENING PRIMROSE Evening Primrose

Family

Flowers have four large petals, open in the evening, closing (permanently) the next morning soon after then sun hits them. The spent blossoms generally age pink. They prefer sandy areas in Zion. O. caespitosa, WHITE TUFTED EVENING PRIMROSE: has short leafless stems arising from a basal tuft of leaves, each stem bearing a large very showy single white flower. Usually at the higher elevations such as the slickrock.

O. pallida, **PALE EVENING PRIMROSE**: a more spreading plant, with smaller white flowers and leafy stems. Often found still blooming in the slickrock well into summer.

# Montia perfoliata

# MINER'S LETTUCE

Purslane Family The stems of the small white flowers of this small ground-hugging plant go right up through the centers of the round leaves. A good source of Vitamin C, miners used the plants in salads to prevent Scurvy. It likes shady relatively moist areas; the slopes of the Emerald Pools trails are carpeted with it this year.

Yucca species

YUCCA

Most of us who live in the west are familiar with this plant, and its long, stiff, very sharp-pointed leaves, and large attractive ivory white flowers, which are pollinated by night-flying Pronuba Moths. Y. utahensis, UTAH YUCCA, has narrow-leaves and very tall flower stalks.

Y. baccata, DATIL or BANANA YUCCA, our broad-leaved species, has short flower stalks with flowers that nestle down among the leaves, thus avoiding being lunched by the deer.

# PINK TO RED OR RED-VIOLET FLOWERS

Astragalus zionis ZION MILKVETCH A low spreading plant having compound leaves with many pairs of opposite rather silvery (and hairy) leaflets. Its flowers are typical pea ones, red violet with white markings in the throat. Very attractive! Look for it in sandy spots from Coalpits Wash up into the slickrock; one of our earliest bloomers. Astragalus argophyllus, SILVER-LEAVED MILKVETCH, is very similar & nearly impossible to distinguish until the seed pods appear, but prefers higher elevations with better soil.

# Castilleja species

# PAINTBRUSH

Snapdragon Family The traditional "Indian Paintbrush" of one or a few stems and bright red (on ours) "flowers", which are actually bracts (specialized leaves). The flowers are the pointy green things sometimes seen protruding slightly from inside the bracts

Castilleja chromosa, EARLY PAINTBRUSH, has bright scarlet "flowers". It is usually the first of our paintbrushes to bloom, and really brightens the landscape. The foliage is also reddish, especially early in the season.

Castilleja scabrida, SLICKROCK PAINTBRUSH, grows out of slickrock crevices; look for it on the east side of Zion. This year they seem to be rather small, but intensely red.

Castilleja linearifolia, WYOMING PAINTBRUSH, has orange-red "flowers"; it starts blooming in the spring, continues through the summer and into the fall, by which time it has usually become guite tall and gangly. Found mostly in Zion Canyon.

# Copyright 2000-2004 Margaret Malm

Agave Family

Pea Familv

<u>Dodecatheon pulchellum</u> var. <u>zionensis</u> **ZION SHOOTING STAR** *Primrose Family* The unusual down-pointing pink flowers resembling shooting stars give this plant its common name. The variety found in Zion is particularly large and attractive. Found in hanging gardens. Usually blooming best in mid-to-late May, but we have some "early birds" at the lower Emerald Pool.

<u>Penstemon eatonii</u> This one's flowers are long, tubular scarlet ones with hardly any flare at the mouth, and relatively wide shiny green opposite leaves. It flowers a little later than <u>P. utahensis</u>, giving the hummingbird pollinators a longer season. One parent of the hybrid Jones Penstemon.

Penstemon palmeriPALMER PENSTEMONSnapdragon FamilyIts fat flowers rangefrom nearly white to deep pink, with distinctive reddish "guidelines" on the lowerlip to lead pollinators into the flowers. The upper leaves are joined around the stem into a boat-shapedarrangement which collects water; when the wind blows the plant gets watered! The only fragrantpenstemon in Zion, it is often found in rather large masses, preferring rocky wash bottoms and drycanyonsides.

Phlox austromontanaDESERT PHLOXPhlox FamilyUsually a compact rounded mound (var. austromontana, DESERT PHLOX), or sometimes looser and<br/>cascading over cliffs and ledges (var. jonesii, ZION CANYON PHLOX); its leaves are very narrow but<br/>not particularly prickly. Flowers are white to deep pink, often several colors on the same plant at the<br/>same time, fading as the flowers age. Rocky areas, generally in sand.

# **BLUE OR PURPLE FLOWERS**

Linum perenne ssp. lewisii LEWIS FLAX Flax Flax Family The 5-petaled light blue -- with darker blue stripes -- flowers of this plant have a rather delicate appearance and do not last long, but the stems are quite tough and fibrous, as flax stems are. The plant has been used medicinally, as well as for food, and the fibers from the stems for making such things as cord and fishing lines. Canyon to slickrock.

<u>Penstemon laevis</u> The blue parent of our hybrid JONES PENSTEMON, it is considerably fatter than the other parent, EATON PENSTEMON; but not as fat as the PALMER PENSTEMON. It is found mainly in the slickrock, in sandy areas.

Penstemon pachyphyllusTHICKLEAF PENSTEMONSnapdragon FamilyThis lovely penstemon has narrow blue flowers, arranged in whorls around the stems. Leaves silvery<br/>and rather thick. Blooms first in Coalpits Wash and later in the Slickrock on the east side; I've never<br/>seen it in Zion Canyon. Likes sand.

Salvia dorriiPURPLE or DESERT SAGEMint FamilyA relatively small shrub with small silvery leaves having a distinct and delicious minty sage smell, The<br/>unusual and particularly beautiful bright blue flowers nestle in purple bracts; quite spectacular in<br/>flower! Found on dry canyon slopes and flats. Just starting to bloom, in the lower elevations.

# YELLOW OR ORANGE FLOWERS

Baileya multiradiataDESERT MARIGOLDComposite FamilyThe very white foliage of this plant is due to its being covered by a mat of white hair. The 25-50 widelayered ray flowers and many disk flowers are bright yellow; usually a single flower head per stem.Found at the lower elevations such as the lower Watchman Trail; a showy 3-season bloomer.

Camissonia brevipes DESERT DAY PRIMROSE, SUNDROPS Evening Primrose Family

This annual is usually only a foot or so high, but can get larger. The golden yellow flowers open during the day. Leaves are mainly basal, unusual in shape -- deeply lobed, clear in to the petiole at the stem end. Deserty areas; check out Watchman Trail.

Cryptantha confertiflora YELLOW FORGET-ME-NOT Borage Family A quite hairy plant with narrow green leaves and small bright yellow flowers in a "scorpion's tail" head. Look for it especially along the Watchman Trail and in Coalpits Wash in early spring.

Encelia frutescens var. virginensis **BUSH ENCELIA** Composite Family A rather small rounded shrub with whitish stems and very rough leaves having short stiff hairs; both ray and disk flowers are yellow. Look for it on gravelly, rocky, deserty slopes such as lower Watchman Trail.

WESTERN WALLFLOWER Erysimum asperum Mustard Family This plant may be a foot tall or occasionally more, generally unbranched; its large clusters of bright yellow four-petaled flowers have a delicate but pleasant lilac scent when newly opened. Larger than Draba, and has leaves on the stem and flowers in clusters.

### Gaillardia spp.

BLANKETFLOWER

Composite Family We have several species here, some rather difficult to tell apart, as they've hybridized. Up to about a foot tall, yellow rays and usually dark brown disk. Found mainly along the highway around the Visitor Center and east to the bridge over the Virgin River. Pretty and cheerful. Most common species is G. spathulata.

#### CLIFFROSE or QUININE BUSH Purshia mexicana Rose Family This shrub is generally rather small in Zion; but occasionally quite large, and with shaggy bark rather like a juniper. The shiny leaves are small and 5-lobed, with a bitter taste that gives it one of its common names. The flowers are light yellow, with 5 petals, 5 pistils which later elongate into very long plumose styles, and many stamens. Closely related and very similar is

Purshia tridentata, ANTELOPE BITTERBRUSH, which can be distinguished by its larger 3-lobed dull green leaves, and smaller flowers with a single pistil.

#### PRINCES' PLUME Stanleya pinnata Mustard Family A large subshrub, woody at the base, this one is guite showy in bloom; with long plumes of narrow yellow flowers quite different from typical mustard ones. It grows on shales and mudstones, only in soil that contains the element selenium, so is poisonous to wildlife and cattle as well as humans. No munching!

Sphaeralcea grossulariifolia GOOSEBERRYLEAF GLOBEMALLOW Mallow Family A typical orange globemallow generally of one or a few stems and loose elongate many-flowered heads, found on rocky slopes. The leaves are deeply cleft, parted, and toothed, easily distinguishing it from

S. ambigua, DESERT HOLLYHOCK, whose leaves are much less cleft, resembling small cultivated hollyhock leaves. It is often guite bushy, and is found mainly in the lower elevations. S. coccinea, SCARLET GLOBEMALLOW, has leaves somewhat more cleft than ambigua, but less than grossulariifolia.

#### 7 May 23, 2003

# Zion National Park

# May 23, 2003

We started off with a really good early flower bloom this year, with a little moisture and warm weather. But alternating warm & cold weather have apparently confused the later-blooming species time. All these flowers can be seen from the roads and trails! We want you to enjoy the flowers; photograph them, tell them you love them, BUT please stay on the roads and trails so that you do not trample the plants and/or compact the soil, thus destroying what you seek to admire. Left unmolested, other people may also enjoy them, and they can reproduce and still be there for future generations to enjoy and study; and the wildlife will still have the habitat and food upon which their lives depend.

**NOTE:** Pictures are available for most of the listed species. To see pictures, click on the Pictures by color section and click on the category of interest. (Photographs may not be used without permission!)

# VARIABLE-COLORED FLOWERS

COLUMBINE Aquilegia species Buttercup Family Columbines, with their long spurs, have a rather unique shape. They are found in moist to wet generally shady places, so look for them around springs and hanging gardens. Our larger vellowflowered species is

A. chrysantha, GOLDEN COLUMBINE, and the similar but smaller red and yellow one is A. formosa, WESTERN COLUMBINE, which is found in dryer places up above the springs and hanging gardens, & showering its seed down into wet places to produce hybrids (with the red looking faded).

Calochortus spp.

MARIPOSA LILY

Lily Family

The flowers of this plant have three large petals, each with a colorful circular generally hairy "gland" at its base. Leaves are few, long and narrow, and all at the base. Our three species generally found in drv places.

C. nuttallii **SEGO LILY:** The creamy white flowers of the seqo lily crown straight erect leafless stems; the three large petals are a creamy white, with a colorful circular hairy "gland" at the base of each. C. flexuosus **BENTSTEM MARIPOSA**: the pink flowers are on the tips of bent or kinked stems; these often very looooong and growing up through a shrub (such as blackbrush) to get the flowers up in the sun.

C. aureus **GOLDEN MARIPOSA**: has bright golden vellow flowers. It likes the Bentonite clay in the Chinle Formation, so is occasionally found on the Chinle trail.

# Cirsium species

THISTLE

# Composite Family

The thistles in Zion all have the typical very prickly thistle foliage. Our two most common are: C. arizonicum, ARIZONA THISTLE, with long narrow bright red flowers clustered together into a cylindrical bundle.

C. neomexicanum var. utahense, **UTAH THISTLE**, is a rather gangly plant with dirty-white flowers clustered in a powder-puff shape.

# Erigeron pumilus

# EARLY WHITE DAISY

Sunflower Family An early bloomer, somewhat spreading, with rather narrow leaves; both they and the stems rather hairy. Typical daisy flowers, with many rays in several layers; usually light pink or bluish, rather than white, despite the name. Look for it mainly in the lower areas of Zion Canyon.

# Epipactis gigantea

GIANT HELLEBORINE

# Orchid Family

This "giant" orchid is giant only in comparison to some of the other wild orchids in Zion. The flowers are pale greenish white, with brownish stripes and/or mottling, and are shaped like the large orchids used in corsages -- but much are smaller. It is found in moist seeps and hanging gardens, and in some places in the Zion Narrows and its side canyons.

Penstemon X jonesiiJONES (HYBRID) PENSTEMONSnapdragon FamilyA natural hybrid between the slender scarlet floweredPenstemon eatoniiand the fat-blue-floweredPenstemon laevis, this plant has colors ranging from very light pink to dark purple and shapes fromnarrow to fat. It is found in places where both parents occur, mainly in the slickrock.

<u>Opuntia</u> species **PRICKLY PEAR** Cactus Family The flat pads of the prickly pear cactus are familiar to most, as are its beautiful waxy-shiny brightly colored pink to red, yellow, or orange flowers. Four of our most common species are:

O. basilaris, **BEAVERTAIL**, is upright, often wrinkled; has no spines but lots of tiny wicked hooked glocchids. Watch out !

<u>O. macrorhiza</u>, **PLAINS PRICKLY PEAR**, may or may not have spines (but does have glocchids); its pads sprawl along the ground in a chain, rooting wherever they touch . Flowers are usually yellow, with a reddish tinge at the base.

<u>O. erinacea</u> var. <u>utahensis</u>, **CLIFF PRICKLY PEAR**, is low-growing, and found mainly in small clumps Its spines are mainly along or near the tops of the pads. Flowers may be yellow, pink to red or red-violet.

<u>O. phaeacantha</u> var. <u>major</u>, **ENGELMANN PRICKLY PEAR**, or **ELEPHANT-EAR**, an upright cactus, has especially large pads with spines mostly along the tops; its flowers are mostly bright yellow with some red markings.

# WHITE FLOWERS

Abronia fragrans **FRAGRANT SAND VERBENA** Potato or Nightshade Family The unusual hemispheric clusters of trumpet-shaped white flowers radiating from a central point, along with a very pleasant fragrance when young (designed to attract night-flying pollinators) are generally enough to make it easy to pick this one out. It is definitely worth stooping to smell! Found in sandy areas, especially in the slickrock.

Astragalus praelongusRATTLEWEED or STINKING MILKVETCHPea FamilyThe leaves are the usual compound pea leaves, with dark green leaflets; the flowers are typical long<br/>narrow Astragalus ones. The seeds in the short fat pods rattle when dried, giving it its common name.<br/>It usually grows on seleniferous soil and absorbs the selenium, giving it a strong rank odor and making<br/>it quite poisonous; a mouthful or two can kill a cow in a few hours. Found mostly on the slopes and<br/>flats of the lower Canyon. A plant with very similar flowers, but low, spreading, and smaller overall<br/>except for flower size, and with spines on the stem, is

Peteria thompsonae, THOMPSON PETERIA, found mainly along the Watchman Trail.

<u>Claytonia lanceolata</u> **LANCELEAF SPRING BEAUTY** *Purslane Family* A delicate plant found growing out of rock crevices in shady moist areas. Flowers are dainty, pink or white, with darker pink veins. The leaves are all basal, and often all withered by flowering time.

# Oenothera species

# **EVENING PRIMROSE**

Evening Primrose

Family

Flowers have four large petals, open in the evening, closing (permanently) the next morning soon after then sun hits them. The spent blossoms generally age pink. They prefer sandy areas in Zion. <u>O. caespitosa</u>, **WHITE TUFTED EVENING PRIMROSE:** has short leafless stems arising from a basal tuft of leaves, each stem bearing a large very showy single white flower. Usually at the higher elevations such as the slickrock.

O. pallida, **PALE EVENING PRIMROSE**: a more spreading plant, with smaller white flowers and leafy stems. Often found still blooming in the slickrock well into summer.

# Yucca species

YUCCA

# Agave Family

Most of us who live in the west are familiar with this plant, and its long, stiff, very sharp-pointed leaves, and large attractive ivory white flowers, which are pollinated by night-flying Pronuba Moths. Y. utahensis, **UTAH YUCCA**, has narrow-leaves and very tall flower stalks.

Y. baccata, **DATIL or BANANA YUCCA**, our broad-leaved species, has short flower stalks with flowers that nestle down among the leaves, thus avoiding being lunched by the deer.

# PINK TO RED OR RED-VIOLET FLOWERS

### **ZION MILKVETCH** Pea Family Astragalus zionis A low spreading plant having compound leaves with many pairs of opposite rather silvery (and hairy) leaflets. Its flowers are typical pea ones, red violet with white markings in the throat. Very attractive! Look for it in sandy spots from Coalpits Wash up into the slickrock; one of our earliest bloomers. Astragalus argophyllus, SILVER-LEAVED MILKVETCH, is very similar & nearly impossible to distinguish until the seed pods appear, but prefers higher elevations with better soil. PAINTBRUSH Castilleja species Snapdragon Family The traditional "Indian Paintbrush" of one or a few stems and bright red (on ours) "flowers", which are actually bracts (specialized leaves). The flowers are the pointy green things sometimes seen protruding slightly from inside the bracts Castilleja chromosa, EARLY PAINTBRUSH, has bright scarlet "flowers". It is usually the first of our paintbrushes to bloom, and really brightens the landscape. The foliage is also reddish, especially early in the season. Castilleja scabrida, SLICKROCK PAINTBRUSH, grows out of slickrock crevices; look for it on the east side of Zion. This year they seem to be rather small, but intensely red. Castilleja linearifolia, WYOMING PAINTBRUSH, has orange-red "flowers"; it starts blooming in the spring, continues through the summer and into the fall, by which time it has usually become quite tall and gangly. Found mostly in Zion Canyon. Dodecatheon pulchellum var. zionensis ZION SHOOTING STAR Primrose Family The unusual down-pointing pink flowers resembling shooting stars give this plant its common name. The variety found in Zion is particularly large and attractive. Found in hanging gardens. Usually blooming best in mid-to-late May, but we have some "early birds" at the lower Emerald Pool. Mimulus cardinalis SCARLET MONKEYFLOWER Figwort Family An attractive hanging garden plant found high on the wet walls of hanging gardens. Sometimes grown as an ornamental, this one has relatively large bright scarlet flowers with yellow markings, that some (with excellent imaginations) think resemble a monkey's face. Found in the hanging gardens. COLORADO FOUR O'CLOCK Mirabilis multiflora Four O'clock Family A low spreading plant, very handsome in bloom, with brilliant magenta to purple funnel-shaped flowers that open only when the plant is in the shade. Found mostly on dry slopes and mesas, not too

Snapdragon Family Penstemon eatonii EATON or FIRECRACKER PENSTEMON This one's flowers are long, tubular scarlet ones with hardly any flare at the mouth, and relatively wide shiny green opposite leaves. It flowers a little later than P. utahensis, giving the hummingbird pollinators a longer season. One parent of the hybrid Jones Penstemon.

# Penstemon palmeri

plentiful.

# PALMER PENSTEMON

Snapdragon Family Its fat flowers range from nearly white to deep pink, with distinctive reddish "guidelines" on the lower lip to lead pollinators into the flowers. The upper leaves are joined around the stem into a boat-shaped arrangement which collects water; when the wind blows the plant gets watered! The only fragrant penstemon in Zion, it is often found in rather large masses, preferring rocky wash bottoms and dry canyonsides.

# **BLUE OR PURPLE FLOWERS**

#### Linum perenne ssp. lewisii **LEWIS FLAX**

Flax Family

The 5-petaled light blue -- with darker blue stripes -- flowers of this plant have a rather delicate appearance and do not last long, but the stems are quite tough and fibrous, as flax stems are. The plant has been used medicinally, as well as for food, and the fibers from the stems for making such things as cord and fishing lines. Canyon to slickrock.

**ROYAL or SMOOTH PENSTEMON** Penstemon laevis Snapdragon Family The blue parent of our hybrid JONES PENSTEMON, it is considerably fatter than the other parent. EATON PENSTEMON; but not as fat as the PALMER PENSTEMON. It is found mainly in the slickrock, in sandy areas.

Penstemon pachyphyllus THICKLEAF PENSTEMON Snapdragon Family This lovely penstemon has narrow blue flowers, arranged in whorls around the stems. Leaves silvery and rather thick. Blooms first in Coalpits Wash and later in the Slickrock on the east side; I've never seen it in Zion Canyon. Likes sand.

PURPLE or DESERT SAGE Salvia dorrii Mint Family A relatively small shrub with small silvery leaves having a distinct and delicious minty sage smell, The unusual and particularly beautiful bright blue flowers nestle in purple bracts; quite spectacular in flower! Found on dry canyon slopes and flats. Just starting to bloom, in the lower elevations.

# YELLOW OR ORANGE FLOWERS

DESERT MARIGOLD Composite Family Baileya multiradiata The very white foliage of this plant is due to its being covered by a mat of white hair. The 25-50 wide layered ray flowers and many disk flowers are bright yellow; usually a single flower head per stem. Found at the lower elevations such as the lower Watchman Trail; a showy 3-season bloomer.

**DESERT DAY PRIMROSE, SUNDROPS** Evening Primrose Family Camissonia brevipes This annual is usually only a foot or so high, but can get larger. The golden yellow flowers open during the day. Leaves are mainly basal, unusual in shape -- deeply lobed, clear in to the petiole at the stem end. Deserty areas; check out Watchman Trail.

Encelia frutescens var. virginensis **BUSH ENCELIA** Composite Family A rather small rounded shrub with whitish stems and very rough leaves having short stiff hairs; both ray and disk flowers are yellow. Look for it on gravelly, rocky, deserty slopes such as lower Watchman Trail.

#### WESTERN WALLFLOWER Erysimum asperum Mustard Family This plant may be a foot tall or occasionally more, generally unbranched; its large clusters of bright vellow four-petaled flowers have a delicate but pleasant lilac scent when newly opened. Larger than Draba, and has leaves on the stem and flowers in clusters.

# Gaillardia spp.

# **BLANKETFLOWER**

Composite Family We have several species here, some rather difficult to tell apart, as they've hybridized. Up to about a foot tall, yellow rays and usually dark brown disk. Found mainly along the highway around the Visitor Center and east to the bridge over the Virgin River. Pretty and cheerful. Most common species is G. spathulata.

**CLIFFROSE or QUININE BUSH** Rose Family Purshia mexicana This shrub is generally rather small in Zion; but occasionally quite large, and with shaggy bark rather like a juniper. The shiny leaves are small and 5-lobed, with a bitter taste that gives it one of its common names. The flowers are light yellow, with 5 petals, 5 pistils which later elongate into very long plumose styles, and many stamens. Closely related and very similar is Purshia tridentata, ANTELOPE BITTERBRUSH, which can be distinguished by its larger 3-lobed dull green leaves, and smaller flowers with a single pistil.

**PRINCES' PLUME** Mustard Family Stanleya pinnata A large subshrub, woody at the base, this one is quite showy in bloom; with long plumes of narrow yellow flowers guite different from typical mustard ones. It grows on shales and mudstones, only in soil that contains the element selenium, so is poisonous to wildlife and cattle as well as humans. No

# munching!

<u>Sphaeralcea grossulariifolia</u> **GOOSEBERRYLEAF GLOBEMALLOW** Mallow Family A typical orange globemallow generally of one or a few stems and loose elongate many-flowered heads, found on rocky slopes. The leaves are deeply cleft, parted, and toothed, easily distinguishing it from

<u>S. ambigua</u>, **DESERT HOLLYHOCK**, whose leaves are much less cleft, resembling small cultivated hollyhock leaves. It is often quite bushy, and is found mainly in the lower elevations.

<u>S. coccinea</u>, **SCARLET GLOBEMALLOW**, has leaves somewhat more cleft than <u>ambigua</u>, but less than <u>grossulariifolia</u>.

# 8 Pictures by color

# 8.1 White flowers

29

# WHITE FLOWERS

Composite or Sunflower Family Erigeron pumilus Erigeron utahensis	EARLY WHITE DAISY UTAH DAISY	(may also be pink/bluish)
Evening Primrose Family Oenothera caespitosa		NG PRIMROSE
Oenothera pallida	PALE EVENING PRIMRO	DSE
Lily Family		
Calochortus nuttallii	SEGO LILY (see	e also under variable)
Smilacina stellata	STAR-FLOWERED SO	LOMON PLUME
Pea Family		
Astragalus praelongus	RATTLEWEED or STI	NKING MILKVETCH
Peteria thompsonae (picture no	ot available) <b>THOMPSON P</b>	ETERIA
Phlox Family Linanthastrum nuttallii	NUTTALL GILIA	
Potato or Nightshade family		
Lycium andersonii Lycium pallidum	ANDERSON WOLFBERI TOMATILLA or WOLFB	
Purslane Family Montia perfoliata	MINER'S LETTUCE	
Rose Family Amelanchier utahensis	UTAH SERVICEBERR	Y
Waterleaf Family		
Phacelia heterophylla (picture r	not available) SCORPIO	NWEED, VARILEAF PHACELIA

# 8.2 Pink to red/red-violet

# PINK TO RED OR RED-VIOLET FLOWERS

Buckwheat Family

 Rumex crispus
 WILD RHUBARB, CURLY DOCK

# Cactus Family

Echinocereus engelmannii	PURPLE TORCH

Echinocereus triglochidiatus CLARET CUP

# Figwort Family

Mimulus cardinalis	SCARLET MONKEYFLOWER
Four O'clock Family	
Mirabilis multiflora C	OLORADO FOUR O'CLOCK
Geranium Family	
Erodium cicutarium (invasive, non-native species)	RED-STEMMED FILAREE
Heath Family	
Arctostaphylos pungens	MANZANITA
Lily Family	
Calochortus flexuosus	BENTSTEM MARIPOSA (see also variable)
Mustard Family	
Arabis holboellii & Arabis perenna	ans ROCKCRESS
Pea Family	
Astragalus zionis Astragalus argophyllus, SILVER-L	ZION MILKVETCH EAVED MILKVETCH
Lathyrus brachycalyx var. zionis	ZION SWEETPEA
Phlox Family	
Phlox austromontana	DESERT PHLOX
2000 2001 Margarat Malm	

compact mounded mound (var. <u>austromontana</u>, **DESERT PHLOX**) looser and cascading over cliffs and ledges (var. <u>jonesii</u>, **ZION CANYON PHLOX**)

Primrose Family

Dodecatheon pulchellum var. zionensis ZION SHOOTING STAR

Snapdragon Family

Castilleja chromosa EARLY PAINTBRUSH

Castilleja scabrida SLICKROCK PAINTBRUSH

Castilleja linearifolia (picture not available WYOMING PAINTBRUSH

EATON or FIRECRACKER PENSTEMON

Penstemon eatonii

Penstemon utahensis UTAH PENSTEMON

Penstemon palmeri PALMER PENSTEMON

Waterleaf Family

Phacelia fremontii FREMONT PHACELIA

# 8.3 Blue or purple

# **BLUE OR PURPLE FLOWERS**

Lily Family

Dichelostemma pulchellum	BLUEDICKS
Flax Family	
Linum perenne ssp. lewisii	LEWIS FLAX
Mint Family	
Salvia dorrii PURP	LE or DESERT SAGE
Mustard Family	
Chorispora tenella	MUSK MUSTARD
Snapdragon Family	
Penstemon laevis	ROYAL or SMOOTH PENSTEMON

# 8.4 Yellow or orange

33

# YELLOW OR ORANGE FLOWERS

Barberry Family

Mahonia repens	OREGON GRAPE

Borage Family

Cryptantha confertiflora YELLOW FORGET-ME-NOT

Composite/Sunflower Family

<u>Baileya multiradiata</u>	DESERT MARIGOLD
Encelia frutescens var. V	virginensis BUSH ENCELIA
<u>Gaillardia</u> spp.	BLANKETFLOWER
Heterotheca villosa	HAIRY GOLDENASTER

# Evening Primrose Family

Camissonia brevipes	DESERT DAY PRIMROSE, SUNDROPS

Lily Family

Calochortus aureus

GOLDEN MARIPOSA (see also variable)

Mallow Family

Sphaeralcea grossulariifoliaGOOSEBERRYLEAF GLOBEMALLOWS. ambigua, DESERT HOLLYHOCKS. coccinea, (picture not available)SCARLET GLOBEMALLOW

Mustard Family

Draba asprella var. zionensis	EARLY DRABA
Erysimum asperum	WESTERN WALLFLOWER
Stanleya pinnata	PRINCES' PLUME
Oleaster Family	
Shepherdia rotundifolia	ROUNDLEAF BUFFALOBERRY
Pea Family	
Lotus plebeius	DEERCLOVER, DEERWEED
Rose Family	

Purshia mexicana

CLIFFROSE or QUININE BUSH

Purshia tridentata ANTELOPE BITTERBRUSH

# 8.5 Variable colors

Buttercup Family

Aquilegia spp COLUMBINE A. chrysantha, GOLDEN COLUMBINE A. formosa WESTERN COLUMBINE

Cactus Family

O. basilaris BEAVERTAIL O. macrorhiza, PLAINS PRICKLY PEAR O. erinacea var. utahensis, CLIFF PRICKLY PEAR O. phaeacantha var. major, ENGELMANN PRICKLY PEAR, or ELEPHANT-EAR

Composite/Sunflower Family

Erigeron pumilus

EARLY WHITE DAISY

(listed under white also)

Lily Family

Calochortus nuttallii Calochortus flexuosus Calochortus aureus SEGO LILY (see also under white) BENTSTEM MARIPOSA GOLDEN MARIPOSA

Orchid Family Epipactis gigantea

**GIANT HELLEBORINE** 

Snapdragon Family

Penstemon X jonesii JONES (HYBRID) PENSTEMON

# 8.6 Trees/inconspicuous

# Trees/inconspicuous

Birch Family

Betula occidentalis WATER BIRCH

Bittersweet Family

Pachystima myrsinites MOUNTAIN-LOVER, OREGON BOXWOOD

Cypress Family

Juniperus spp.JUNIPERJuniperus osteospermaUTAH JUNIPERJuniperus scopulorumROCKY MOUNTAIN JUNIPER

Maple Family

Acer grandidentatum Acer negundo var. interior

BIGTOOTH MAPLE BOXELDER

Olive Family

Fraxinus velutina VELVET ASH

Willow Family

Populus fremontii FREMONT COTTONWOOD

35