

Ethnobotany of Southern Utah Flora

Notes by Dr. Ronald Martin

Barberry (*Mahonia* sp.) Oregon grape

Indians

- Dye- yellow roots
- Heartburn and ulcers – root tea
- Rheumatism – root tea
- Kidney disorders – root tea
- Skin problems- root tea

Food – Vitamin C-rich

- Jelly- made from berries- gourmet wild meat condiment.
- Wine – Berries
- Flavoring – soups and stews

Burdock (*Arctium minus*)

Indians

- Vision quests – visions vividly retained longer in minds-greater wisdom (bitter tea from unpeeled roots)

Pioneers

- Blood purifier, (root tea or tincture)
- Bladder infections (root tea)
- Neutralize poison
 - Snake bite (poultice)
 - Poison oak, ivy (fresh bruised leaves)
 - Acne (fresh crushed leaves)

Food

- Peeled roots and stems, (Boiled 40 minutes with two water changes to remove bitterness)
- Young first year leaves (boil 40 minutes with two changes of water)

Ceanothus (*Wild Lilac*)

- Three distinct leaf semi-parallel veins that run lengthwise down the leaves.

Pioneers

- Soapbloom – Pioneers called ceanothus soapbloom. Flowers are high in the soapy glucoside, saponin. The flowers were collected by Native Americans and Pioneers and used to make soap.

Indians

- Sore throats - Native Americans and early pioneers chewed the leaves of ceanothus to reduce pain and swelling of the throat. Modern herbalists claim ceanothus contains alkaloids that stimulate and relieve blockages of the lymph system. This may explain its early use as a treatment for tonsillitis.

Chokecherry (*Prunus virginiana*) fruit are bitter and astringent.

Indians

- Leached fruit in streams, dried and ground - Hunting food and added to stews and pemmican. (danger-pits contain amygdalin which turns into cyanide in the body)
- Bows – a preferred wood for making bows – strength and flexibility
- Dye – root bark collected in spring – deep red
- Cough syrup - tea from bark and fruit

Pioneers

- Chokecherries are harvested after first frost
- Simmer and strain fruit and used juice for cooking (1 quart water/gallon fruit)

Cliffrose (*Cowania mexicana*)

Indians

- Emetic - Native Americans used cliffrose as an emetic to induce vomiting.
- Padding - In the Navajo language the word for baby cradle and cliffrose are the same. The soft bark makes great pillow stuffing.
- Diapers - Besides being soft Cliffrose bark is also adsorbent. Best of all it does not cause rashes on tender skin. For this reason it was used to pad Native American cradleboards.
- Underwear - Cliffrose bark is very soft and because it is relatively hypoallergenic it does not cause skin rashes. These qualities made cliffrose-bark clothes a favorite for wearing next to the skin.
- Gold dye - is made by boiling twigs and leaves with raw alum. Tan dye is made by mixing cliffrose leaves and stems with powdered juniper branches.
- Arrow shafts - Straight cliffrose limbs were often used for arrow shafts by Native Americans.

Currents (*Ribes sp.*) All edible

Indians

- Emetic - large quantities of seed containing fruit are emetic.
- Kidney and Urinary tract infection - Root tea
- Pregnancy - Fruits believed to help women to become pregnant. Fruit are high in prostiglandin precursor, gamma-linolenic acid (GLA) used modernly to treat PMS, alcoholism, diabetes, arthritis, eczema.

Food

- Leaves - Ate with deer fat (Indians)
- Pemmican - Dried berries ground with fat and meat
- Jellies and Syrups
- Wine
- Pies

Dandelion (*Taraxacum officinale*) Dent de lion-lion's tooth

Pioneers

- Potherb- Leaves more nutritious than spinach (the better something is for you the worst it tastes- bitter glycosides) Eat leave in March before flowers appear- Eat leaves from shaded plants- Plant taproot in basement in winter for winter greens.
- Tea- Dried leaves gathered in spring
- Coffee substitute- roasted and ground taproot
- Wine- yellow petals
- Muffins- yellow petals

Elderberry (*Sambucus*) Greek instrument

Pioneers

- Lightning- -plant couldn't be struck- planted near home to protect house from lightning.
- Spiritual powers- protect those in house from evil spirits and sickness. Pruning will release the elder tree mother who haunts anyone who destroys her home (Danish legend)
- Charm- Twig carried close to body for health and luck.
- Planting guide- plant wheat when first green berries appear.
- Pea shooters- hollowed stems
- Elk buglers- hollowed stems

Indians

- Music tree- flutes made by removing soft pith from dried spring branches

Food (blue berries only- don't eat seeds)

- Wine- Flower petals
- Muffins- Flower Petals
- Tea- Flower petals
- Syrup and juice and jelly- steamed fruit.

Filaree (*Erodium cicutarium*)

- **Cork screw** - Long, pointed, beak-like filaree seeds will curl like a cork screw when they dry then straighten out again when they are moistened. As they repeatedly do this they screw themselves into the ground.
- **Early browse** - the tender salad greens produced by the filaree plant in the early spring are a tasty treat for all grazing and browsing animals.

Indians

- **Lion bites** - Navajo Indians used filaree and other members of the geranium family to treat wounds caused by mountain lions and other large cats to stop bleeding and prevent infections

Pioneers

- **Postpartum treatment** - Mild teas made of dried leaves and roots were both taken internally and used as a douche to stop afterbirth bleeding, relieve vaginal inflammation and prevent infections.

Food

- Young filaree leaves have a parsley-like flavor and make a nice ingredient in toss salads. Picking only leaves with hairy leafstalks helps you avoid poisonous look-a-likes.

Fireweed (*Epilobium angustifolium*) Dried Stalks encourage fire

Food

- **Raw**- Sweet pith- Indians split the stem and ate the pith (indians)
- **Shoots**- young shoots harvested and eaten like asparagus (Europe and Asia)
- **Potherbs**- young shoots and stems (Canada and Northern Europe)
- **Tea** – Dried mature leaves tea adulterant (England)
- **Honey**- (US)
- **Forage** (US)

Globemallow (*Sphaeralcea ambigua*) – sore eye poppy, pink eye

- **Malo** - The foliage of the plant is covered with star shaped hairs that are irritating to the eyes.

Indians

- **Acne** - Ute Indians treated acne by rubbing crushed leaves on infected pimples.
- **Snake bites** - Pueblo Indians used paste of mashed globemallow to treat snake bites? It was reported to be effective at drawing out venom and reducing inflammation.
- **Mud floors** - Paste made from the ground roots of globemallow was used by Hopi Indians to harden the mud floor of their adobe dwellings.
- **Pepto-Bismol** - Navajos used a liquid mix of globemallow as a home remedy for stomach upsets.

Gooseberry (*Ribes*)

Juniper (*Juniperus*)

Old World

- Incense – Ritual cleansing, purification rites (asian temples)

Indians

- Incense – Spiritual quests
- Medicine bags – berries used to ward off evil spirits and disease.

Pioneers

- Cedar chests – Rocky Mt. Juniper (red cedar)
- Anti-witch – Witches must correctly count leaves to get past the tree

Food –berry-like cones Vitamine C-rich, inner bark

- Raw berries- (Indians)
- Four additive –dried ground berries, and leaf ashes (Indians)
- Corn meal additive - ashes of leaves (Indians)
- Flavor gin (Dutch) Jenever which is dutch for juniper was shortened to gin.
- Flavor stews (French)
- Flavor Sauerkraut and cabbage (Germans)
- Flavor wild meat dishes (US)
- Grill – green branches placed on grill flavor grilled food.

Manzanita (*Arctostaphylos*)

- Arctos = bear, staphule = grape bunch; hence, Arctostaphylos means bear grapes.
- Manzanita is a spanish word meaning little apple.
- Manzanita seed germinate in response to the heat produced by fire.

Indians

- Insect bites - Native Americans treated insect bites with the juice from manzanita leaves.
- Tanning - The leaves of manzanita are very high in tannins and were used by Native Americans to treat and preserve animal skins.
- Smoking - Manzanita leaves were mixed with leaves of other plants to make Indian tobacco.
- Urinary tract infections - Native Americans made a tea from manzanita leaves that was used to treat urinary tract infections and venereal disease. It is now known that the healing properties of manzanita tea come from the fact that glycosides in the leaf are converted to the disinfectant, hydroquinone, in the urine

Pioneers

- Cankers - If you chew on a manzanita leaf and you find that numbs your mouth. The tannins in the leaf constrict blood vessels and reduce painful swelling.
- Sitz baths - Crushed manzanita leaves have good astringent properties leaves and can be added to sitz baths to reduce hemorrhoid and postpartum swelling.

Food

- Cider - Native Americans made a cider beverage by crushing the apple-like fruit of manzanita.
- Survival - Yuk! Manzanita berries are sour and mealy. However, they are edible and will last through the winter. For this reason they were gathered and dried by Mountain Men and Southwest Indians for winter food.

Miner's Lettuce (*Montia perfoliata*)

Indians

- Constipation – Strong medicinal tea made from fresh herb

Pioneers

- Scurvey prevention- (California miners)

Food vitamin C-rich

- Salad green – Stems leaves and flowers (Pioneers and indians)
- Potherb – Pioneers and Indians
- Cultivated – called winter pulsane (Europe and Cuba)

Pinion Pine (*Pinus edulis*,)

Food

- Nuts – Seeds ripen Oct-Nov.
- Not dependable – bumper crop every 7-8 years - estimate next years crop by observing numbers of immature cones.
- Nutritious - 60% fat - complete protein - 1 lb 3,000 calories.
- Adult males were most healthy, women and children malnourished. (Indians)
- Pregnancy - women prevented from eating nuts while pregnant since weight gain was thought to make delivery more difficult. (Indians)
- Flour meal - Ashes from needles ground with wild grains. (Indians)
- Bark meal - Survival – Scraped inner bark from south side of tree- vitamin C-rich – raw, or dried and ground into meal for cooking. (indians)
- Pack rat nest- Indians raided stick and twig storage caches – 1 quart nuts/nest
- Hantavirus - from raiding rodent nut caches.

Harvesting

- a) Unopened cones - To prevent loss of nuts to birds and rodents, unopened cones harvested and dried in shelters. Hang in burlap sacks – shake sacks after cones have opened
- b) Canvas- After cones have opened, spread canvas under tree and shake.

Sorting.

Place nuts in water and discard floating nuts. (aborted nuts with empty seeds)

Roasting

Shake in cast iron skillet over heat until desired taste and consistency is achieved

Shelling

Place warm nuts between damp dish towels and roll vigorously with rolling pin.

Storage

Unroasted nuts become rancid after 7-8 months. Roasted nuts keep longer

Rose (*Rosa woodsii*)

Indians

- Mouth sores – petals mixed with bear grease
- Fever sores and blisters – powdered petals
- Eye wash – petal water
- Fevers and colds – tea from roots
- Boils – inner bark

Food

- Petals- flavor deserts, jellies, drinks. Remove bitter white tip from petals before using.
- Hips – Highest vitamin C of all fruits. Sixty times more vitamin C than lemons.
 - Mature after heavy frost.
 - WWII 500 tons of rose hips were collected to make rosehip syrup for vitamin C.
 - Raw- Split and remove the seeds- substitute for cranberries in sauces.
 - Dried- Ground into meal (indians)
 - Cooked rose hips – cookies, puddings, soups, drinks, jelly and jam.

Serviceberry (*Amelanchier utahensis*)

Indians

- Sunburned sore eyes – soothing eye wash made from inner bark tea.
- Tools - Because serviceberry wood is hard and heavy it was used by Indians to make digging tools such as planting sticks and hoes.
- Weaving rods.
- Bows and arrows - Both bows and arrows were made from the hard straight branches of serviceberry bushes.
- Snowshoe frames - The sturdy serviceberry wood was used by Pioneers and Indians to make snowshoe frames.

Pioneers

- Funeral services – Being one of the first bush to flower in the spring, serviceberry provided flowers for early spring funerals

Food - Serviceberries are actually seedy little miniature apples. Vitamin C-rich

- Raw - Like any apple, serviceberries make a nutritious snack.
- Dried - They can also be dried for consumption in the winter. Taste like almonds when dried
- Grasshopper pie - Ute Indians made this delicious treat by combining crushed grasshoppers and serviceberries.
- Pemmican - Pemmican, made of serviceberries mixed with animal fat, buffalo meat and other plants provided a nutritious high energy snack. You could say that Native Americans invented the powerbar.
- Apple pie - Yes! Serviceberry is actually a wild apple bush native to Utah. Pioneers loved to make delicious pies, puddings and jellies from these little wild apples. The seeds were usually left in for extra flavor.
- Pancakes and muffins
- Syrups and jellies

Pretty Cinquefoil

Family: Rose

Genus species: *Potentilla concinna*

Identifying Characteristics

Leaves: The common name comes from the French word meaning five fingers. Often the silky leaves do look like a hand with five fingers; however, more than five fingers are often present. Leaves are mainly found near the base of the plant.

Flowers: Like most members of the rose family, the pretty yellow cinquefoil flowers have five petals, five sepals and numerous sepals. The Flowers are found at the end of long slender stems.

Habitat: Cinquefoil thrives in well moist, well-drained, sunny alpine meadows. Because it is tougher than most meadow species its predominance in a meadow may indicate range deterioration. Flowers may be seen June-August.⁶

Historical uses by Pioneers and Indians

Edibility: Roots: The roots of Cinquefoil have been known to save entire populations from starvation when crops have failed. Bitter tasting tannins were removed from roots by boiling and the edible product was said to taste somewhat like sweet potatoes. ⁵⁻⁹

Medicinal Uses: Cinquefoil was given the genus name *Potentilla*, meaning powerful, because the plant was believed to contain powerful medicine and magic. It is one of the few sources of quinine, used to treat the intermittent fevers caused by Malaria.

Its high tannin content makes it an excellent astringent. For this reason it was effective in relieving cramping and diarrhea when taken internally and when applied externally it very effective at reducing swelling and stopping bleeding. As a gargle it had excellent expectorant qualities in that it reduced inflammation of mucus membranes. ⁵⁻⁹

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Other Historical Uses: Because of their high tannin content, the roots of Cinquefoil were often used to tan leather. The roots were also an excellent source of red dye. An odd use of this plant was that it was used in the making of the alcoholic drink, Schnapps.⁵⁻⁹

Elephant-head

Family: Figwort

Genus species: *Pedicularis groenlandica*

Identifying Characteristics

Leaves: Fernlike leaves are mostly at the base of the plant but also grow alternately up the stem.

Flower: The small pink flowers look amazingly like miniature elephant heads, complete with two floppy ears and a trunk. The flowers are clustered in a tight spike at the top of the stem.

Habitat: Elephant-head is found in the marshy areas of alpine meadows, usually near a small brook or stream. The species name *groenlandica* refers to Greenland where it was discovered. Blooms late June- mid August.

Historical uses by Utah Pioneers and Indians

Edibility: The roots of Elephant-head were eaten and said to have a flavor similar to parsnips. The flowers were a particular treat for Indian children because of their sweetness. The leaves were boiled and eaten like spinach. BE CAREFUL. Elephant-head can attach itself to other plants picking up strange flavors and sometimes poisons from these plants.²

Medicinal Uses: Tea made from Elephant-head has mild sedative and muscle relaxant properties and was drunk to relieve coughs and alleviate the effects of physical overexertion.^{2,4}

Shooting Star

Family: Primrose

Genus species: *Dodecatheon pulchellum*

Identifying Characteristics

Leaves: Leaves are found at the base of the stem and are spatula-shaped.

Flowers: Small flowers, ½ to 1 inch, droop at the ends of stems that arise from the end of the stalk like the struts of an umbrella. The pink petals are reflexed backward toward the stem. Pointed purple stamens arise from the yellow center of the flower.

Habitat: Shooting Star is found in the marshy areas of alpine meadows, usually near a brook or a stream. The flowers begin to bloom in June

Historical Uses by Pioneers and Indians

Food: All parts are reported to be edible but the leaves are said to have an unpleasant texture.² Historically, roots and leaves were roasted in ashes before eating. The small amount of food that can be obtained from this plant does not justify destruction of this beautiful plant.

Medicine: Native Americans made tea from this plant for the treatment of cold sores.² In some tribes women used the striking Shooting Star flowers ceremonially to control men and obtain their love.¹

Monkey Flowers

Family: Figwort

Genus Species: *Mimulus guttatus*

Identifying Characteristics

Leaves: Ovate leaves grow in opposite pairs along the stem

Flowers: Bright Yellow Flowers are found near the top of the plant. The flowers are mouth-shaped with the lower lip protruding. The Lower lip has three distinct lobes and the upper lip has two lobes. Red speckles garnish the opening of the mouth-like flower.

Habitat: Monkey Flowers grow in the wet, marshy areas of alpine meadows, usually near a brook or a stream.

Historical uses by Utah Pioneers and Indians

Edibility: Leaves have a salty bitter taste and were eaten raw like lettuce or used as a flavor enhancer. Leaves were sometimes cooked to remove some of the bitterness.²

Medicinal uses: Monkey flower was known to have pain relief qualities. A wet paste of made of crushed leaves was applied to minor burns, skin irritations and wounds for pain relief. ^{2,3}

Small-Leafed Angelica

Family: Parsley

Genus species: (*Angelica pinnata*)

Identifying Characteristics

Leaves: The leaves of Angelica are found in oppositely orientated pairs. Leaf veins extend from the midrib to the outer tips of the serrations on the edges of the leaves. This distinguishes it from poisonous Water Hemlock. In hemlock the veins of leaves extend from the midrib to the notches at the edges of the leaves.

Flowers: Small inconspicuous green flowers are found in clusters at the end of umbellet-pedicels that arise like the spokes of an umbrella from the end of the stem.

Habitat: Angelica is found in the boggy areas of alpine meadows.

Historical Uses by Pioneers and Indians

Edibility: Leaves are edible and were added to soups and stews as well as flavoring for fish dishes. They are too strong-tasting to be eaten raw. Leaves of Angelica species are also an ingredient in the alcoholic drink, gin.² CAUTION ANGELICA LOOKS VERY SIMILAR TO POISON HEMLOCK.

Medicinal Uses: Angelica received its name when its supposed plague-curing properties were revealed to a medieval monk by an angel.⁷ Native Americans chewed dried roots to relieve coughs and sore throats. Teas made of simmered roots were used to relieve chest colds.³ One of the more odd uses Angelica was the control of flatulence. Currently, the anti-spasmodic qualities of Angelica are revered for their effective treatment of painful menstruation, and marketed under the name of Dang gui.

The Prairie Smoke

Family: Rose

Genus species: *Geum triflorum*

Identifying Characteristics

Leaves: Are mostly found at the base of the plant and are rather fern-like.

Flowers: Dark pink flower droop downward from the top of the stem. During maturation, sepals elongate giving the flower a feathery appearance. It is for this stage that the flower is named.

Habitat: Prairie Smoke is found in sunny areas of moist but well drained alpine meadows.

Historical Uses by Pioneers and Indians

Food: Native Americans made of tea boiled roots, which the pioneers described as tasting somewhat like sassafras tea.¹⁰

Medicine: Geum species contain both tannins and antiseptic oil and have been used mainly to alleviate stomach and intestinal problems. One of the volatile oils, eugenol, actually increases activity of the main stomach enzyme, trypsin. Extracts of Prairie Smoke also seemed to have analgesic properties and when the need arose teas from Geum species were substituted for quinine in the treatment of malarial fevers.^{1, 7} Ceremonially, extracts of Prairie Smoke were used to wash and disinfect sweat baths and were an ingredient in purifying herbal steams.

Utah Penstemon

Family Figwort

Genus species (*Penstemon utahensis*).

Identifying Characteristics

Leaves: Utah Penstemon leaves are thick and leathery.

Flowers: The vivid red, trumpet shaped, flowers are distinguished from other red penstemons by their flat faces. All penstemons have five stamens.

Habitat: This penstemon is found in relatively dry sunny areas of the mountains. It is often seen along roadsides.

Historical uses by Pioneers and Indians

Medicinal Uses: Utah Penstemon flowers were boiled and the infusion was used to treat burns, both to reduce pain and promote healing.



Pioneer And Indian Medicine

By Ron Martin

<http://surweb.org/tour/medplant/question.htm>

What Utah plant was used to prevent thirst on long journeys?

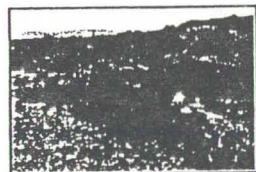
Brigham's Tea (*Ephedra* species)

Brigham's Tea contains the drug, ephedra, which gives a boost of energy and activates mucous membranes. Indians traveling across the desert chewed Brigham's tea to ward off thirst. Early settlers believed that tea brewed from its stems prevented venereal disease; thus, it was the common beverage at houses of ill repute in the Southwest.

Because of its stimulating and allergy-relief properties Mormon settlers began drinking the tea both as a substitute for coffee and as a relief for allergies. It was a favorite of Brigham Young and thus, acquired the name 'Brigham's tea'.

Identifying Characteristics:

Brigham's tea is recognized by its green broom-like, jointed branches with no visible leaves.



Brigham's tea growing along the cliffs of Snow Canyon, UT



Brigham's tea growing in the sandstone near Cedar City, UT..

What Utah plant was used as a love potion?

Evening Primrose (*Oenothera* species)

In some tribes, prayers of love were offered to the primrose flower, then it was picked and rubbed on the desired person to initiate the love spell.

Pioneers made tea from the plant that was drunk to calm nervousness and relieve almost any malady. Modern herbalist collect primrose for its GLA contents, a compound that has been proven useful in treating heart and vascular diseases.

Identifying Characteristics:

Flowers of evening primrose are closed during the day and open in the evening hours. Flowers have four petals and a unique four-lobed stigma. Leaves are narrow, lance shaped and pinnately veined.



Evening primrose near Silver Reef, UT



Evening primrose.

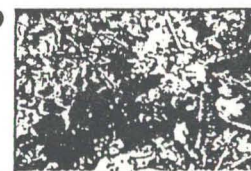
What Utah plant was used to make drops for sore eyes?

Barberry (*Mahonia* species)

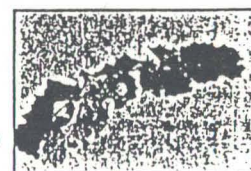
Barberry roots are high in the alkaloid berberine, an agent that reduces inflammation of mucus membranes such as those covering the eye. To make the eye wash, peeled barberry roots were soaked in water. Tea from boiled roots was also ingested to relieve gonorrhea. Berries were added to tea to help reduce fevers.

Identifying Characteristics:

Barberry closely resembles Christmas holly with its plastic-textured, spiny leaves. Barberry is evergreen and in the spring produces small round yellow flowers. Berries ripen to a bluish color and grow in clusters like grapes.



Barberry growing on the forest floor in Cedar Canyon, UT.



Barberry fruit.

What Utah plant was used to treat diaper rash, hemorrhoids and vaginitis?

Yerba Mansa (*Anemopsis californica*)

Yerba mansa was considered a medicinal plant of first choice among early settlers. Roots were dried and kept on hand as a general medicine. Crushed roots were made into ointments for diaper rash, hemorrhoids and other skin ailments such as scrapes, chaffing and abrasions.

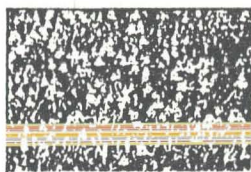
Tea from the roots was drunk to relieve sinus problems, colds, coughs and diarrhea.

Identifying Characteristics:

Yerba mansa grows in springs and seeps. Leaves arising from the base of the plant have long petioles and are oval shaped. Flowers are white and have a characteristic white cone in the center.



Yerba mansa flowers



Yerba mansa growing near a stream at Leeds, UT

What Utah plant was one of the bitter herbs used by Moses at the first Passover Feast?

Horehound (*Marrubium vulgare*)

Horehound soothes the mucus membranes of the throat, relieving coughs and wheezing. However, it has an extremely bitter taste, being one of the original bitter herbs used by Moses at the first Passover Feast.

Because of its bitter taste, horehound was usually made into hard candy that could be sucked. This was how the first cough drops started. Horehound is still a common component of modern cough drops.

Identifying Characteristics:

Horehound is identified by its crinkly, roundish, mintlike, wooly, opposite leaves. Clusters of small white flowers arise from the axis of the leaves.



Horehound plants near Silver Reef, UT



Horehound

What Utah plant was used to remove body lice?

Joshua Tree (*Yucca brevifolia*)

Juice from brewed roots of Joshua trees was applied to the body to remove and prevent body lice. The brew was also taken internally to alleviate arthritis and ulcers. Some tribes used ground roots to treat sore joints and bruises.

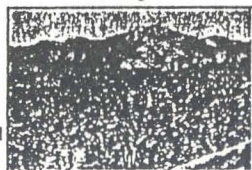
Modern herbalists use Joshua tree roots to treat rheumatoid arthritis.

Identifying Characteristics:

Joshua tree is unique among Utah yuccas in that it has a tree-like appearance. Like all yuccas, its leaves are narrow, thick and spiny at the end. Flowers are large, green to cream colored, and arise from a central stem at the end of branches.



Joshua tree near St. George, UT



Joshua tree forest in Southwest, UT

What Utah plant did both Pioneer and Star Trek doctors use to treat wounds?

Rumex (*Rumex* species)

In a far away galaxy Dr. Crusher applied ground rumex root to Captain Picard's injuries to stop the bleeding. They undoubtedly learned this from the Pioneers and Indians of our day who used rumex to treat wounds, blisters, and burns.

Other common names for rumex species include curly dock, sorrel, wild rhubarb and canaigre. When treating nettle stings the healing action of curly dock was aided by saying "Nettle in, dock; dock in, nettle out; dock rub nettle out."

Identifying Characteristics:

Rumex has characteristic large leaves mostly arising from the base of the plant and a central stalk covered with tightly packed winged fruit.



Wild rhubarb growing in the sand near Silver Reef, UT



Wild raspberry flowers

What Utah plant was used to expel worms?

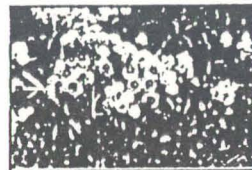
Pearly Everlasting (*Anaphalis margaritacea*)

Tea made from the entire plant was ingested to expel worms from the bowels. The tea was also drunk to relieve the symptoms of tuberculosis and asthma. Externally, the tea was used for healing wounds.

Modern herbalists use pearly everlasting as an antihistamine, an anti-inflammatory agent and a mild sedative.

Identifying Characteristics:

Pearly everlasting is characterized by its clusters of small, globe-like flowers with papery petals and yellow centers. The leaves are alternate and lance-shaped with soft hairs on the underside. The bottom leaves usually die back as the plant matures.



Pearly everlasting flowers



Pearly everlasting growing in Cedar Canyon, UT

What Utah plant was used to alleviate painful menstruation?

Filaree (*Erodium cicutarium*)

Filaree was a reliable treatment for alleviating painful and heavy menstruation. It is high in vitamin K and other clotting factors. Filaree was also the traditional afterbirth remedy in the Southwest and was thought to control postpartum infections.

Identifying Characteristics:

Filaree is also known as stork's bill because of its long beak-like fruit. Small pink flowers occur in clusters of two or more. Leaves are divided into feathery segments. The plant usually grows low to the ground.



Filaree in Cedar Canyon, UT



Filaree flowers

What Utah plant was the source of the Balm of Gilead?

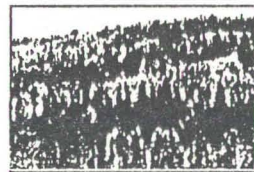
Quaking Aspen (*Populus tremuloides*)

Balm of Gilead is a red, sticky resin that covers the young leaf buds of aspen trees. It is found early in the spring and was used by the pioneers to heal wounds and reduce inflammation.

Balm of Gilead was made by soaking young leaf buds in alcohol. This process dissolved the resin on the buds. Dissolved resin was then used to make salves for treating wounds. It is now believed to have antioxidant qualities.

Identifying Characteristics:

Aspens have a distinctive white bark that is spotted with black areas where limbs have fallen off and injuries have occurred. The leaves are nearly circular and pointed at the tip. The leaves tremble in the slightest breeze; thus, aspens are often called quaking aspens or quakes.



Aspens among the evergreens near Cedar Breaks, UT



Aspen flowers and buds

What Utah plant was used to heal, protect and soften skin?

Heal-all (*Prunella vulgaris*)

Heal all, as its name implies, was applied to every type of skin ailment, abrasion or wound. It is still available today in commercial salves and lotions used for healing minor burns and skin irritations.

A tea made from heal-all was also taken internally to heal ulcers and diarrhea. Heal-all contains ursolic acid, a compound thought to have anti-cancer properties.

Identifying Characteristics:

Heal all is in the mint family and has a characteristic head of tightly packed flowers. Unlike other plants in the mint family heal-all has no discernible odor. The stem is square and the leaves are lance shaped.



Heal-all flowers



Heal-all plants at Crystal Springs, UT

What Utah plant is called holy herb because of its medicinal properties?

Yerba Santa (*Eriodictyon* species)

Yerba santa means 'holy herb' in Spanish. Indian tribes chewed or smoked the leaves to relieve respiratory problems such as bronchitis.

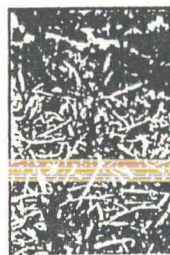
Pioneers made tea from dried leaves for the treatment of sore throats and coughs. Yerba santa is still considered by herbalists to be one of the best expectorants or decongestants around.

Identifying Characteristics:

Yerba santa grows in disturbed areas such as along roadsides. It has narrow, greasy, sticky, dark green leaves with a strong smell. Flowers, which arise from a terminal stem, are white, small and funnel-shaped.



Yerba santa near Kolob Canyon, UT



Yerba santa leaves

What Utah plant was used to make shampoo for shiny beautiful hair?

Yucca (*Yucca* species)

Lather was made from yucca roots by rubbing them under water and used as a hair rinse. Indian tribes made tea from inner roots to treat diabetes and arthritis.

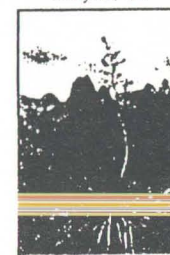
Yucca suds with sugar were given following childbirth to induce afterbirth delivery. Fermented beverages were also made from yucca fruit.

Identifying Characteristics:

Yucca plants have thick, tough, linear leaves arising from the base of the plant with sharp spines at the apex. Leaves often have fibers peeling from their margins. Large white flowers arise from a central stalk and produce large green pod-like fruit.



Yucca plants at Snow Canyon, UT



Yucca at Kolob Canyon, UT

What Utah plant was eaten to relieve constipation?

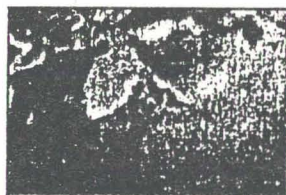
Serviceberry (*Amelanchier* species)

Berries of serviceberry were eaten fresh or made into dried cakes for the trail. Eating the berries helped prevent, and was used to treat, constipation.

The inner bark of serviceberry was used to make eyewashes, ear drops, and help with vaginal bleeding.

Identifying Characteristics:

Serviceberry grows as a shrub or bush and has small alternate, oval shaped leaves. Fruit look similar to large blueberries at maturity but are actually more like little seedy apples than berries.



Serviceberry Fruit found near Kolob Canyon, UT



Serviceberry Flower

What high mountain meadow plant did Pioneers eat to prevent scurvy?

American Bistort (*Polygonum bistortoides*)

Scurvy is a disease caused by a lack of vitamin C in the diet. Pioneers surviving solely on wild meat were often susceptible to this disease. Scurvy can be prevented by eating plant parts that are high in vitamin C such as the roots of bistort. Bistort roots are said to taste somewhat like chestnuts and can be eaten raw or roasted.

Identifying Characteristics:

Angular joints at the base of leaves look like knots; therefore, bistort is also called knotweed. The leaves are alternate and narrow. The flowers are condensed in 1-2-inch terminal plumes, showing up first as pink and then fading to white. American bistort is found in high mountain meadows.



American bistort growing near Brian Head.



American bistort flowers.

Brigham's Tea/ Ma Huang

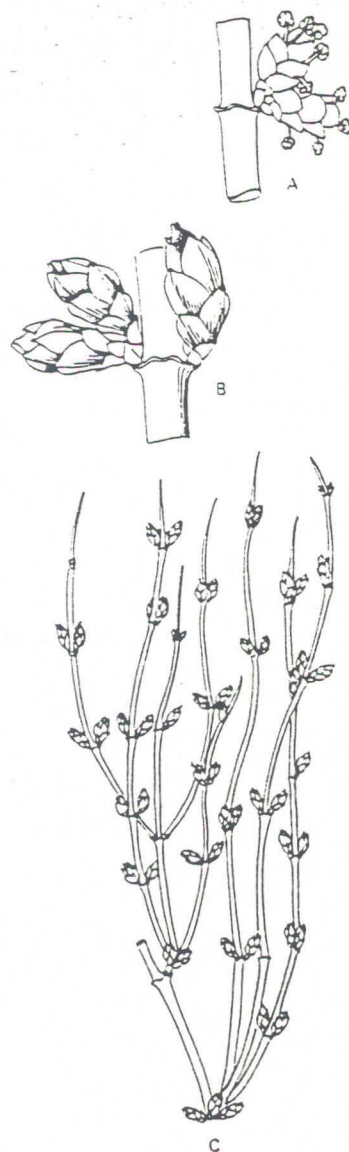


FIGURE 12-10

Ephedra, from which ephedrine is obtained, is a gymnosperm, as indicated by the presence of cones rather than flowers. (A) Staminate cones; (B) ovulate cones; (C) plant. *Ephedra*, or ma huang, is the active ingredient of herbal asthma medicines that have recently been implicated in deaths when improperly used.

"Natural" Diet Product	Active Ingredients
Diet Pep	ephedra/ma huang
Easy Herbal Cleansing Tea	ephedra/ma huang
Gen-Fen	ephedra/ma huang, St. John's Wort
Herba Majic	ephedra/ma huang, chromium picolinate
Thermadrene	ephedra/ma huang, caffeine
Thermolift	ephedra/ma huang, caffeine, chromium picolinate
Trim Easy	ephedra/ma huang, chromium picolinate
Trim Easy Plus	ephedra/ma huang, chromium picolinate
Ultra Diet Pep	ephedra/ma huang, caffeine
Twinlab Metabolift	ephedra/ma huang, caffeine, chromium picolinate
Twinlab Ripped Fuel	ephedra/ma huang, caffeine, chromium picolinate

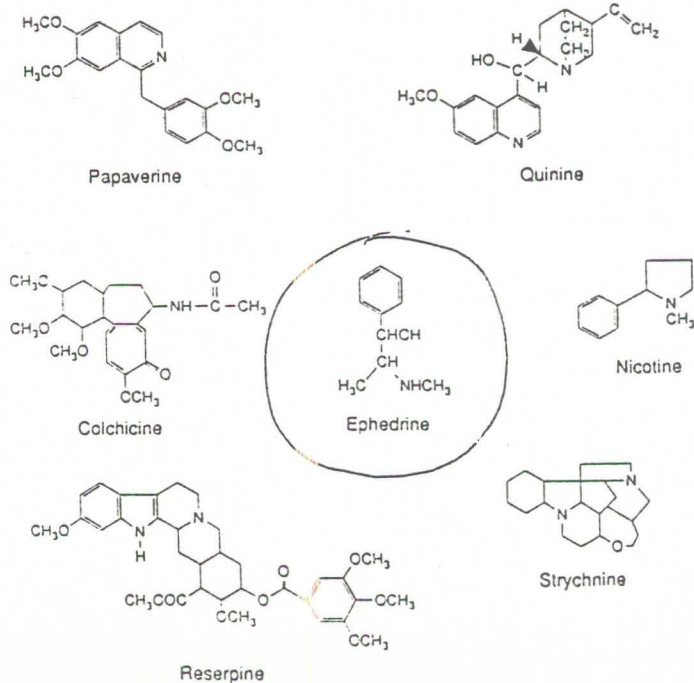


FIGURE 12-7

All the compounds shown here are classified as alkaloids, although the nitrogen in both colchicine and ephedrine is not contained in one of the rings. The other compounds belong to a variety of kinds of alkaloids, depending on the type of ring in which the nitrogen atom is located and its position within the ring.

Walter 518

~~Ephedra~~ -

Chinese - 3000 years (Ma Huang)
soaked dried stems of Ephedra sinica
- stimulant, asthma, hay fever

Westerners after 1920 pseudoephedrine

- Ephedra extract - decongestant

- Isolated ephedrine

- many deaths - cardiac arrest - especially children

- structure of ephedrine similar to adrenaline

- modern asthma drugs - method of action similar

are synthetic derivatives of ephedrine

- pseudoephedrine - pseudostuffed

Marmun tea

- 1877 Indians introduced - to piney farming tonic beverage

- marmun drank it instead of coffee or tea

Today - treat: asthma & hay fever



phys.

NUTRITION

SOLUTIONS

The Dirt on Diet Pills Miracle or Mirage?

They claim to do everything from killing cravings to boosting your metabolism, but how much stock should you place in diet pills' promises? In the chart below, you'll find a sampling of brand name prescription, over-the-counter and "natural" weight-loss products, along with their active ingredients. To get the facts on the risks and benefits of these products, click on the ingredient name.

PRODUCT NAME	ACTIVE INGREDIENT(S)
"Natural" products:	
Cascara sagrada (any brand)	cascara sagrada/buckthorn
Chitosan (any brand)	chitosan
Diet Pep	ephedra/ma huang
Easy Trim Herbal Cleansing Tea	ephedra/ma huang
Gen-Fen	ephedra/ma huang St. John's Wort (a.k.a. hypericum)
GNC Men's Thermogenic Formula	L-carnitine chromium picolinate
GNC Women's Thermogenic Formula	L-carnitine chromium picolinate Hydroxycitric acid (a.k.a. <i>Garcinia cambogia</i> , CitriMax)
Herbal Majic	chromium picolinate ephedra/ma huang
Optibolic Chromium Picolinate Plus	chromium picolinate
Optibolic System LF	L-carnitine

ALSO @ PHYS

[Allure exposes the truth on the diet pill industry](#)

OUTSIDE LINKS

[Healthy Weight Journal's Slim Chance Awards \(most bogus weight loss schemes\)](#)
[FDA Backgrounder on health frauds and how to spot them](#)

	<u>chitosan</u>
Optibolic Women's Energy	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)
PhenCal 106	<u>L-carnitine</u> <u>chromium picolinate</u>
Psyllium (any brand)	<u>psyllium</u>
Royal Trim	<u>L-carnitine</u> <u>Hydroxycitric acid</u> (a.k.a. <i>Garcinia cambogia</i> , CitriMax)
Shape Plus	<u>buchu</u> <u>chromium picolinate</u> <u>senna</u> <u>uva ursi</u> (a.k.a. bearberry) <u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Spirulina (any brand)	<u>spirulina</u>
Thermadrene	<u>ephedra/ma huang</u> <u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Thermolift	<u>caffeine</u> (e.g., coffee, guarana, mate, tea) <u>chromium picolinate</u> <u>ephedra/ma huang</u>
Thermophen	<u>caffeine</u> (e.g., coffee, guarana, mate, tea) <u>St. John's Wort</u> (a.k.a. hypericum)
Trim Easy	<u>ephedra/ma huang</u>
Trim Easy Plus	<u>chromium picolinate</u> <u>ephedra/ma huang</u>
Turning Point	<u>L-carnitine</u> <u>chromium picolinate</u> <u>Hydroxycitric acid</u> (a.k.a. <i>Garcinia cambogia</i> , CitriMax)
Twinlab Metabolift	<u>chromium picolinate</u> <u>ephedra/ma huang</u> <u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Twinlab Ripped Fuel	<u>caffeine</u> (e.g., coffee, guarana, mate, tea) <u>L-carnitine</u> <u>chromium picolinate</u> <u>ephedra/ma huang</u>
Ultra Diet Pep	<u>ephedra/ma huang</u> <u>caffeine</u> (e.g., coffee, guarana, mate, tea)

Over-the-counter drugs:

Acutrim	<u>phenylpropanolamine</u>
Caffedrine	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Dexatrim	<u>phenylpropanolamine</u>
Diet Ayds	<u>benzocaine</u>
Diurex	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)
NoDoz	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Permathene-16	<u>phenylpropanolamine</u>
Quick Pep	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Shape Plus	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Slim Mint gum	<u>benzocaine</u>
Thinz-Span	<u>phenylpropanolamine</u>
Tirend	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)
Vivarin	<u>caffeine</u> (e.g., coffee, guarana, mate, tea)

Rx drugs:

Adipex	<u>phentermine</u>
Adipost	<u>phendimetrazine</u>
Bontril	<u>phendimetrazine</u>
Dexedrine	<u>dextroamphetamine</u>
Didrex	<u>benzphetamine</u>
Fastin	<u>phentermine</u>
Ferndex	<u>dextroamphetamine</u>
Mazanor	<u>mazindol</u>
Oxydess	<u>dextroamphetamine</u>
Phentrol	<u>phentermine</u>
Prozac	<u>fluoxetine</u>
Sanorex	<u>mazindol</u>
Spancap	<u>dextroamphetamine</u>
Tenuate	<u>diethylpropion</u>

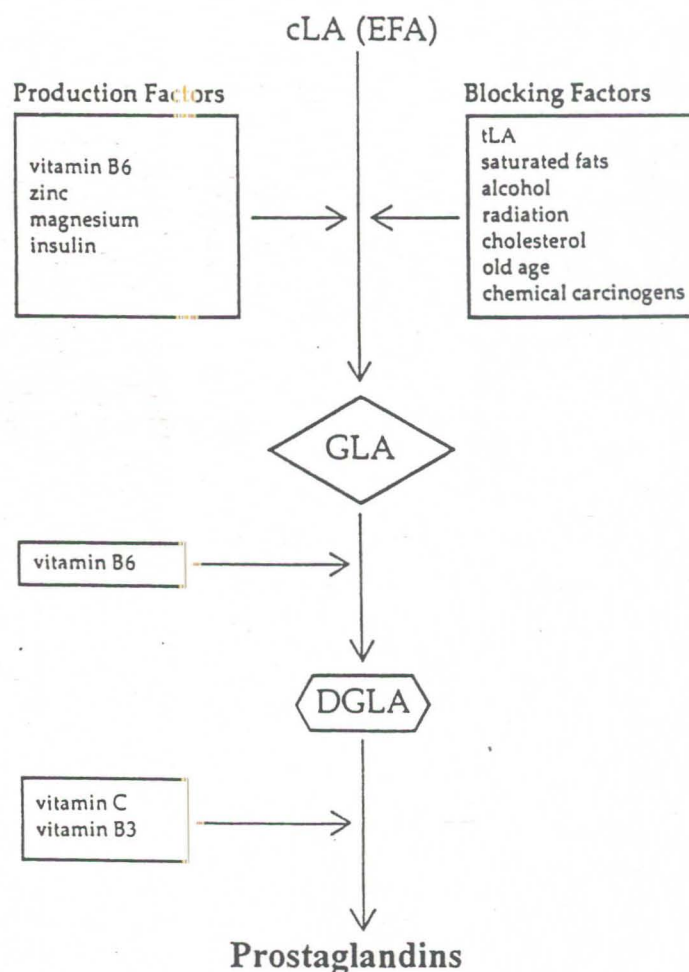
Evening Primrose

Important Polyunsaturated Fatty Acid Content of the Major Oils

Oil	cis-linoleic (cLA)	gamma-linolenic (GLA)	Blocking Fats
Evening Primrose	73%	9%	18%
Safflower	73%	—	27%
Corn	57%	—	43%
Sunflower	58%	—	42%
Soybean	51%	—	49%
Peanut	29%	—	71%
Olive	8%	—	92%
Coconut	2%	—	98%



GLA and PG Production



Shown are nutrient deficiencies and blocking factors which interfere with the body's production of GLA which is needed for the production of prostaglandins. PG regulates all organs and cells thus affecting the health of the body in many ways. When cLA is blocked, then you must get your GLA from the diet so that you can make optimal amounts of PG.

Good to the Bitter End: Wild Desert Gourds

JUAN Espinosa held up two globular desert gourds in front of his chest. The Baja California native posed there for a moment, dwarfed by the tall rock walls of Canyon de Guadalupe, the stone image of the Virgin looking down upon him.

"Do you know why they call these fruits *chichicoyotas*?" he asked in Spanish, a quizzical look on his face.

"No, why?" I replied, sensing that his answer might be one of numerous folk variants. The name *chichicoyota* is used for several species of wild gourds belonging to the genus *Cucurbita*, as do pumpkins and squashes. This name helps to distinguish them from the unrelated, cultivated gourd, *Lagenaria siceraria*, which is called *bule* in northwestern Mexico.

"Pues," he whispered, tipping his hat back, looking around to see if anyone else was within eye- or earshot. "The women use these when they want to wean the babies. They just cut the fruits open, and rub a little of the bitter juices on their *chichis*."

He wildly pantomimed a well-endowed mama in the act of squashing the foul-smelling gourd pulp all over her breasts.

"Then when the baby tries to suck, he tastes the *amargidad*, and is tricked into thinking that *chichis* are no good any more!"

Chichicoyota. Trickster breasts. In English, they're called coyote gourds.

So that old trickster Coyote is even willing to trick innocent babies. "It's for their own good," Coyote offers.

Of course. Everything coyotes do is said to be for someone else's own good....

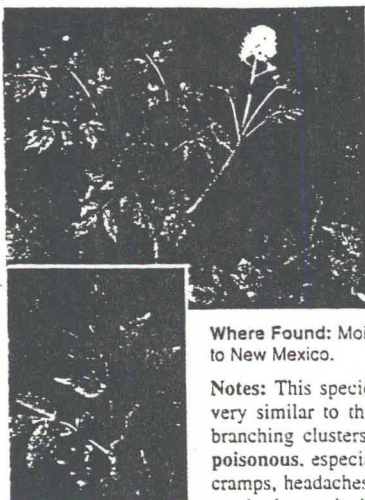


So that old trickster Coyote is even willing to trick innocent babies.
"It's for their own good," Coyote offers.

From *Gathering the Desert* by Paul Mirocha

WILDFLOWERS

Buttercup Family (Ranunculaceae)



BANEERRY *Actaea rubra*

General: Perennial herb; stems erect, 30–100 cm tall, 1–several, branched, leafy; from fleshy rhizomes.

Leaves: Alternate, few, 2–3-times divided in 3s; segments coarsely sharp-toothed and lobed, 2–10 cm long.

Flowers: White, small, with 5–10 slender, 2–3 mm long petals and 3–5 sepals, soon fading; many flowers in long-stalked, rounded clusters (racemes); May to July.

Fruits: Glossy red (sometimes white) berries, 6–8 mm long, several seeded.

Where Found: Moist, often shady sites; foothills to subalpine; the Yukon and NWT to New Mexico.

Notes: This species includes *A. arguta* and *A. eburnea*. • Baneberry leaves are very similar to those of sweet-cicely (p. 114), but those plants produce widely branching clusters (umbels) of slender capsules. • All parts of these plants are poisonous, especially the roots and berries. As few as 2 berries can cause severe cramps, headaches, vomiting, bloody diarrhea and/or dizziness. Severe poisoning results in paralysis of the respiratory system and cardiac arrest. No deaths have been reported in North America. • The Cheyenne considered baneberry sacred. Sweet Medicine of Sweet Root Standing, a hero and prophet who lived with them for 445 years, transferred his sacred powers to this plant when he died. Women drank baneberry root tea to increase milk flow and to transfer Sweet Medicine's characteristics to their children—good mentality, strength, patience. Some believe that children are now losing some of these qualities and becoming like cows, because they drink cow's milk. In the holy 'throwing it at him' ceremony, a priest bit fragments from the sacred root and spat these onto his hands and those of other priests. The recipients had to avert their gaze, because the root would blind them if it touched their eyes, and the priest was careful not to swallow the juice or he would soon die!

ROUGH-FRUITED FAIRYBELLS *Disporum trachycarpum*

General: Perennial herb; stems leafy, 30–60 cm tall, with few branches; from thick, spreading rhizomes.

Leaves: Alternate, egg- to lance-shaped, 3–9 cm long, pointed at tips, rounded to heart-shaped at base, fringed with short, spreading hairs, clasping.

Flowers: Creamy to greenish-white, narrowly bell-shaped, 10–15 mm long, nodding; 1–3 at branch tips; April to July.

Fruits: 1–3 lumpy berries, 8–10 mm across, bright orange-yellow to scarlet, velvet-warty skinned, 4–18-seeded.

Where Found: Rich, moist sites; plains to subalpine; BC and Alberta to New Mexico.

Notes: Fairybells could be confused with clasping-leaved twisted-stalk (p. 100) and false Solomon's-seal (above), but the flowers of clasping leaved twisted-stalk hang from the base of its leaves (not at the stem tips), and false Solomon's-seal has unbranched stems tipped with large clusters of flowers. • Hooker's fairybells (*D. hookeri*, also called *D. oreganum*) is very similar to rough-fruited fairybells, but the hairs on its leaf edges point towards the tip, and its berries are smooth-skinned (not warty), though sometimes hairy. Hooker's fairybells grows in moist, shaded woods at low elevations, from central BC and southwestern Alberta to Oregon and Montana. • These berries are edible, but they have little flavour. Some native peoples considered them poisonous or associated them with ghosts and snakes, possibly because of their brilliant colour and unusual texture. Other tribes ate them occasionally. • Rodents and grouse feed on these berries.

