

SCIENTIFIC NAME | *Ostrya knowltonii* Coville.

COMMON NAME | Knowlton hop hornbeam, but sometimes called Western hornbeam and iron-wood. *Ostrya* is from the Greek word *ostrua*, designating a tree with very hard wood and *knowltonii* honors Frank Hall Knowlton, 1860-1926, an American botanist, paleontologist, and ornithologist. The type specimen was collected (Toumey in 1894) in upper Hance Canyon along the former or Old Hance Trail.

FAMILY (COMMON NAME) | Betulaceae (Birch Family)

SYNONYMS | None, but sometimes listed under *O. baileyi* Rose

DISTRIBUTION | Texas, New Mexico, Utah, and Coconino and Yavapai Counties, Arizona. In Grand Canyon NP it is reported from Tuweep, Bright Angel Trail, South and North Kaibab Trails, Dripping Springs and Hermit Trails, Roaring Springs, Deva Temple, Sumner Butte, Hance Canyon, Red Canyon, Upper Nankoweap Canyon, and Saddle Canyon.

HABITAT | Perennial tree. Canyons in the pine belt, bases of monoliths, shaded defiles or narrow gorges, "window boxes," and hanging gardens in sandstone, desert areas, 4,900 to 8,900 feet, April to May.

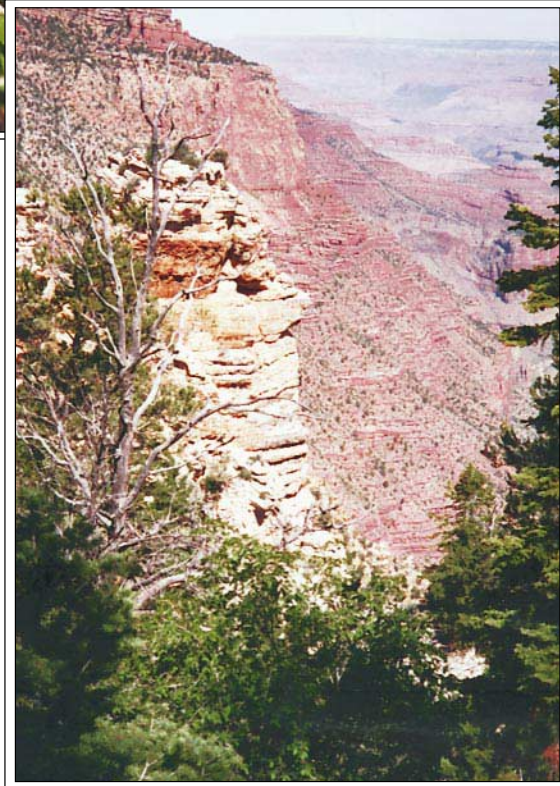
LOOK-ALIKES | Similar to *Betula occidentalis* (water birch), but differs by nutlets wingless and covered by an enlarged, inflated involucre or sac.



- Tree to 8 m tall, but usually shrubby
- Bark ashy-gray
- Bracts of female flowers deciduous, resemble hops
- Male flowers (catkins) pendulous
- Leaves simple, alternate, and doubly toothed



Close up of *Ostrya knowltonii*
— BY N. BRIAN



Habitat — BY N. BRIAN

SCIENTIFIC NAME | *Paronychia sessiliflora* Nutt.

COMMON NAME | None, but the genus is sometimes called whitlow-wort or nailwort. *Paronychia* is from the Greek word for whitlow or felon, a disease of the nail in reference to the plants presumed ability to cure inflammations of the finger due to its whitish scaly parts, and *sessiliflora* meaning stalk-less flower, as stems are lacking.

FAMILY (COMMON NAME) | Caryophyllaceae (Pink Family)

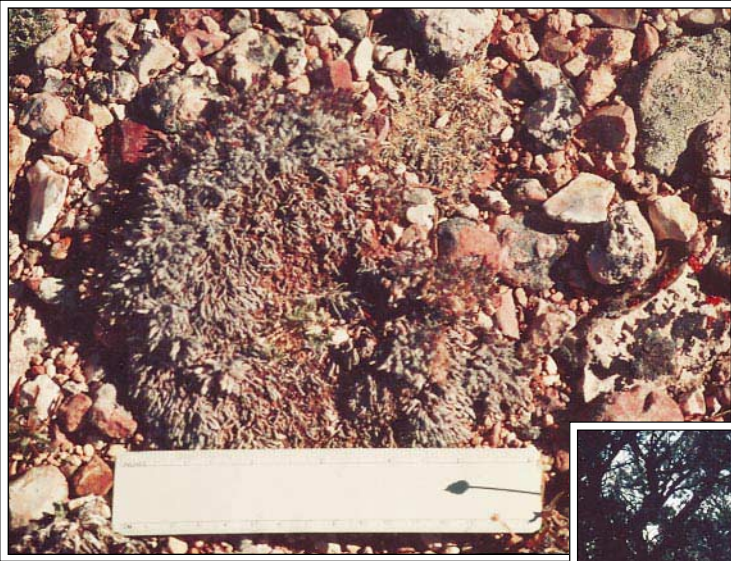
SYNONYMS | None

DISTRIBUTION | Alberta, Saskatchewan, south to Nevada, Arizona, New Mexico and Texas. In Arizona, found in Coconino County. In Grand Canyon NP it is reported from Cape Solitude, Cape Final, Point Imperial, and east of Grandview Point.

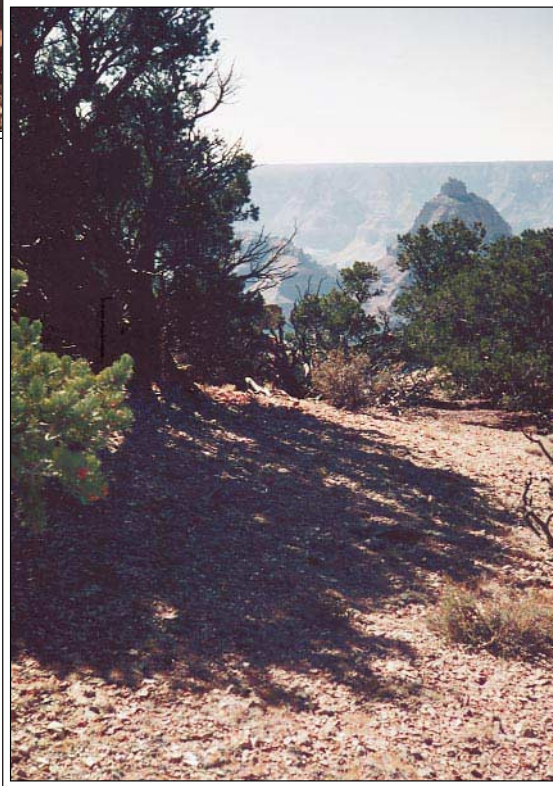
HABITAT | Perennial mat-forming herb. Limestone bedrock (in Grand Canyon NP), growing in shadscale, pinyon-juniper, sagebrush, mountain brush, and fringed sagebrush communities, 5,500 to 9,700 feet, May.

LOOK-ALIKES | None

- Cushion-like plant from woody root
- Stems lacking
- Leaves gray-green, crowded, and short
- Leaf blades and stipules same length
- Flowers solitary (or in pairs), sessile, buried in the leaves
- Petals none
- Leaves minutely spine-tipped



Close up of *Paronychia sessiliflora*
— BY N. BRIAN



Habitat — BY N. BRIAN

SCIENTIFIC NAME | *Penstemon pseudoputus* (Crosswhite) N. Holmgren

COMMON NAME | None, but sometimes called dirty penstemon and Kaibab penstemon or beard-tonque. *Penstemon* is a Latin and Greek word, either meaning almost thread-like, or *pente* meaning five and *stemon* meaning *stamen*, in reference to the conspicuous and sterile fifth stamen or staminode, while *pseudo* means false and *putus* means pure or untainted, in reference to the flowers having no pure color.

FAMILY (COMMON NAME) | Scrophulariaceae (Figwort Family)

SYNONYMS | *Penstemon virgatus* Gray ssp. *pseudoputus* Crosswhite

DISTRIBUTION | Utah and Coconino County, Arizona. In Grand Canyon NP it is recorded from Bright Angel Point, west of junction of Cape Royal and Point Imperial Roads, Marble Flats, Cape Royal, Greenland Springs, Upper Little Park, upper Kanabownits Canyon, and Cape Final.

HABITAT | Short-lived perennial herb. In Utah's Markagunt Plateau it is found in loamy soil, rolling open sagebrush community. In Arizona, it is found in open ponderosa pine woods, sub-alpine meadows, openings in aspen-spruce forests, and disturbed areas on the Kaibab Plateau, where it was previously thought to be endemic, 8,000 to 9,000 feet, July and August. It adapts to disturbance and is considered an invader or increaser species.

LOOK-ALIKES | Very similar to *P. virgatus*, but differs by having a hairless lower lip (palate) of the violet or purple flower, a non-hairy, white staminode, and hairy, linear leaves with edges rolled inward toward the upper side. It may be confused with *P. rydbergii*, which arises from a basal rosette of leaves at the end of a rhizome and has white and yellow hairs on the lower lip of the flower.



- Anthers dehisce from the distal end to the connective
- Slender, perennial herb
- Inflorescences one-sided, narrow, strict, and usually with 5 whorls
- Non-hairy, white staminode

SCIENTIFIC NAME | *Penstemon rydbergii* A. Nels.

COMMON NAME | None, but sometimes called Rydberg's penstemon or beardtongue. *Penstemon* is either a Latin and Greek word. It may mean "almost a thread," from the stamen-like staminode, or it may mean five stamens from *pente* meaning five and *stemon*, meaning stamen, as the fifth stamen is present, conspicuous with hairs, and sterile. The species name *rydbergii* honors Per Axel Rydberg, 1860-1931, a Swedish taxonomist who studied the plants of the Rocky Mountains.

FAMILY (COMMON NAME) | Schrophulariaceae (Figwort Family)

SYNONYMS | None

DISTRIBUTION | Wyoming, Idaho, to New Mexico, and Coconino County, Arizona. In Grand Canyon NP it is reported from the North Rim in The Basin and Upper Little Park.

HABITAT | Perennial herb. In oak-maple, service-berry, sagebrush, and aspen-fir-spruce parkland communities and meadows in moist soil, 7,400 to 11,400 feet, July to August.

LOOK-ALIKES | Similar to *P. pseudoputus* and *P. virgatus*, but differs by flowering stalks arising from a basal rosette of leaves at the end of a rhizome and by white and yellow hairs on the lower lip of the flower.



- White and yellow hairs on flower lip
- Stamens open the full length and across the connective
- Calyx usually without hairs
- Flowers dark violet-purple

SCIENTIFIC NAME | *Phacelia filiformis* Brand.

COMMON NAME | None. *Phacelia* is from a Greek word meaning cluster, from the dense flowers, and *filiformis* means having the form of a thread, hence delicate.

FAMILY (COMMON NAME) | Hydrophyllaceae (Waterleaf Family)

SYNONYMS | None

DISTRIBUTION | Endemic to Mohave and Coconino County, Arizona. In Grand Canyon NP it is recorded from North Kaibab Trail, Cliff Springs, Bright Angel Trail in Redwall and Supai Formations, Hermit Trail, east of South Rim village, Grandview Trail, President Harding Rapid (CRM 43 L), and Forster Canyon (CRM 123 L).

HABITAT | Annual herb. Canyon ledges and well-drained, rocky slopes, 1,450 to 8,000 feet, April to September.

LOOK-ALIKES | Similar to *P. glechomaefolia*, but differs in smaller corolla and seeds fewer in number.



- Corolla 5-9 mm
- Seeds not more than 25
- Flower color blue, or blue and white



General view of *Phacelia filiformis*
— BY W. HODGSON



Plant sample from
herbarium sheet.

SCIENTIFIC NAME | *Phyllodoce empetriformis* (J. E. Smith) D. Don.

COMMON NAME | None, but the genus is called mountain heath or mountain heather. *Phyllodoce*, a Greek word, is the sea nymph mentioned by Virgil and *empetriformis* means formed within stone.

FAMILY (COMMON NAME) | Ericaceae (Heather Family)

SYNONYMS | *Menziesia empetriformis* J. E. Smith, *Bryanthus empetriformis* (Smith) Gray

DISTRIBUTION | Alaska, Pacific Northwest, Montana, Wyoming, and California and Coconino County, Arizona, where it is known from one collection in Grand Canyon NP (McKee in 1928) on the Yaki Trail. The occurrence of this montane plant so far south of the normal range of the species is very unusual. Attempts to relocate it have been unsuccessful. A 1991 verification of the fragmented specimen questioned the identification, stating that it could be *P. breweri*, typically known from the Sierra Nevada of California.

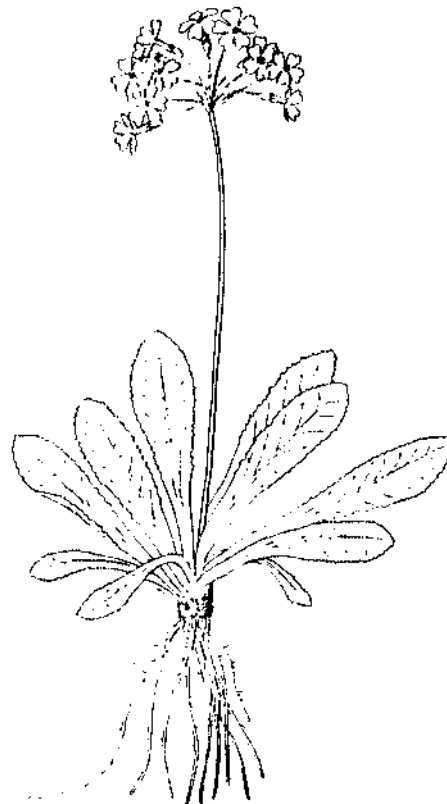
HABITAT | Perennial, matted, dwarf, evergreen shrub. It is found on moist slopes, mountainsides, subalpine timberline, and meadows with acidic soil in subalpine to alpine habitats, 4,800 to 7,800.

LOOK-ALIKES | Leaves similar to *Cercocarpus ledifolius* (mountain-mahogany), but differs by having needlelike, shiny, glabrous or sparsely glandular leaves; bell-shaped, purple flowers; and no feathery tails on the seeds.



- Evergreen shrub with alternate, crowded leaves
- Leaves, needle-like, leathery, margin strong rolled under
- Flowers cup- or bell-shaped, pink to rose-purple

SCIENTIFIC NAME <i>Primula specuicola</i> Rydb.
COMMON NAME None, but sometimes called cave dweller primrose, cave primrose, and Easterflower. <i>Primula</i> is a Latin word meaning a diminutive of first, in reference to its early spring flowering and <i>specuicola</i> means cave dweller or dwelling from <i>specui</i> meaning covered watercourse ditch, drain, pit, mine, sewer, hollow cavity, or cavern, and <i>cola</i> meaning dweller.
FAMILY (COMMON NAME) Primulaceae (Primrose Family)
SYNONYMS <i>Primula hunnewellii</i> Fernald has been combined within the species.
DISTRIBUTION Endemic to the canyons of the Colorado River, Utah and Coconino and Mohave Counties, Arizona. In Grand Canyon NP it is recorded from Buck Farm Canyon (CRM 40.7 R), CRM 41.5 R, Saddle Canyon (CRM 47.1 R), North Kaibab Trail, Cliff Spring on the Walhalla Plateau, and Columbine Falls (CRM 274.5 L).
HABITAT Perennial herb. Vertical sections of limestone, for example in Grand Canyon NP it is found in the Kaibab, Muav, and Redwall limestone sections, in hanging gardens and seeps, 1,250 to 7,600 feet, March to August.
LOOK-ALIKES None



- Stout, short prostrate stems on or below the ground which root at nodes and produce shoots
- Perennial herb 6-28 cm tall
- White mealy surface to bicolored leaves
- Flowers in umbels, 5-40 flowered
- Purple primrose flowers with yellow center
- Clings to vertical, wet, cliff faces



Closeup of *Primula specuicola*
— BY N. BRIAN



General view — BY K. WARREN



Habitat — BY K. WARREN

SCIENTIFIC NAME <i>Pteryxia petraea</i> (Jones) Coult. & Rose
COMMON NAME None, but called rock wing parsley. <i>Pteryxia</i> is from pteris meaning wing or alternately a fern, and <i>petraea</i> meaning growing among rocks.
FAMILY (COMMON NAME) Umbelliferae or Apiaceae (Parsley Family)
SYNONYMS <i>Cymopterus terebinthinus</i> (Hook.) M.E. Jones var. <i>petraeus</i> (M.E. Jones) Goodrich and <i>C. petraeus</i>
DISTRIBUTION Idaho, Oregon, California, and Coconino County, Arizona. In Grand Canyon NP it is recorded from the Hermit and South Kaibab Trails, North Rim, and South Rim.
HABITAT Perennial herb. In pinyon pine community, 4,600 to 7,000 feet, April and May.
LOOK-ALIKES Similar to <i>Aletes macdougalii</i> , but differs by leaves usually not all basal and bracts subtending the flower (calyx) with teeth triangular to ovate.

- *Plants more than 15 cm tall*
- *Herbage not hairy*
- *Leaves pale green or gray-green*
- *Slender taproot*
- *Leaf blades 2-3 times pinnate, yellow flowers*



Plant sample from
herbarium sheet.

SCIENTIFIC NAME <i>Ranunculus uncinatus</i> D. Don
COMMON NAME None, but may sometimes be called barbed buttercup. <i>Ranunculus</i> is the diminutive form of a Latin word <i>rana</i> meaning little frog, in reference to the generally wet habitats in which it is found, while <i>uncinatus</i> means barbed or hooked at the tip.
FAMILY (COMMON NAME) Ranunculaceae (Crowfoot Family)
SYNONYMS <i>R. bongardi</i> Greene var. <i>tenellus</i> (Nutt.) Greene
DISTRIBUTION Alaska, Montana, south to Colorado, California, Mexico, and Coconino County, Arizona. In Grand Canyon NP it is known from North Rim at Kanabownits Spring, Neal Spring, Robbers Roost, and Little Dutchman Meadow (ca. 1 mile southwest of Hades Lake).
HABITAT Perennial herb. Springs and meadows, 8,000 to 9,000 feet, July to August.
LOOK-ALIKES None

- *Stems 8-50 cm tall*
- *Plants slender with long branches*
- *Leaf blades deeply 3-cleft with divisions toothed, lobed, or entire*
- *Small, yellowish flowers*
- *Greenish-yellow, reflexed sepals*
- *Numerous seeds in a globose head*



Plant sample from
herbarium sheet.

SCIENTIFIC NAME | *Rosa stellata* Woot. ssp. *abyssa* A. Phillips

COMMON NAME | None, but called Grand Canyon rose. *Rosa* is an ancient Latin name, *stellata* means star-shaped in reference to the stellately-arranged pubescence, and *abyssa* means of the abyss or canyon.

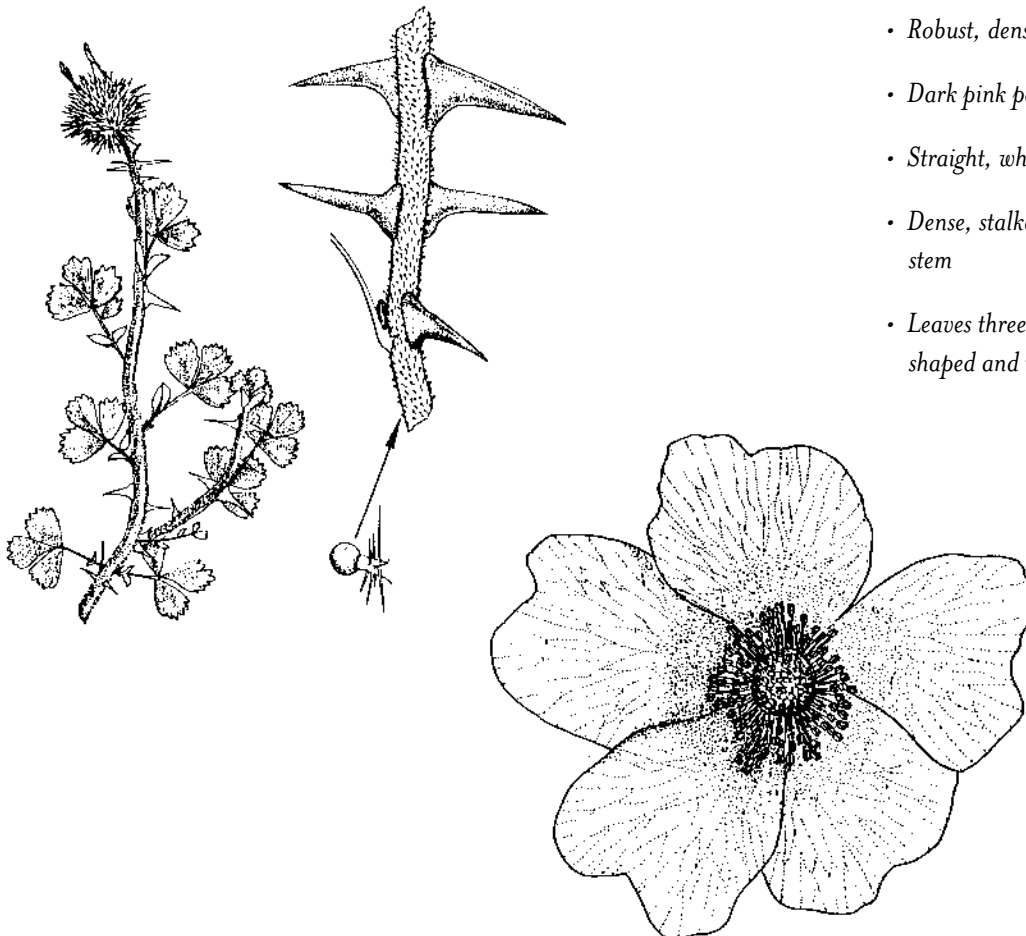
FAMILY (COMMON NAME) | Rosaceae (Rose Family)

SYNONYMS | None

DISTRIBUTION | Endemic to Mohave and Coconino Counties, Arizona. In Grand Canyon NP it was collected once from Eremita Mesa (this location has not yet been rediscovered) and is known from Dutton Point, Havasupai Point, Fishtail Mesa and SB Point. Outside of Grand Canyon NP, it is known from the Arizona Strip District (BLM) and Navajo Nation lands along Marble Canyon.

HABITAT | Perennial, clonal subshrub. Shallow drainages, canyon rims, breccia pipes, and low limestone breaks of Kaibab Limestone in limestone and red clay soils in Great Basin conifer woodland and desertscrub, 4,500 to 7,500 feet, May and June.

LOOK-ALIKES | None



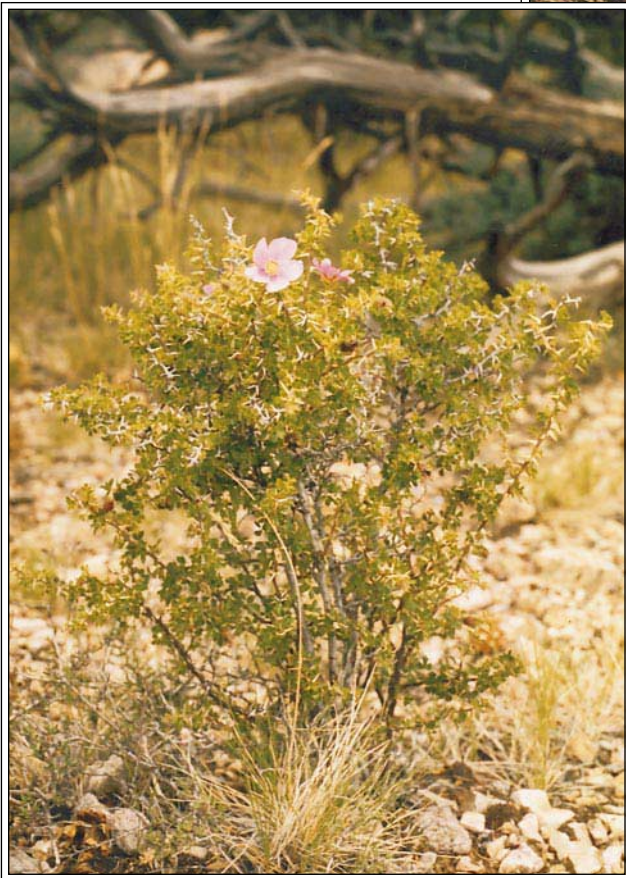
- Robust, dense bristles below the petals
- Dark pink petals
- Straight, white thorns
- Dense, stalked, glandular hairs on stem
- Leaves three-parted and wedge-shaped and turn bright red in the fall



Closeup of *Rosa stellata ssp. abyssa*
— BY H. HOLMGREN



Habitat — BY N. BRIAN



General view — BY H. HOLMGREN

SCIENTIFIC NAME | *Sclerocactus parviflorus* Clover & Jotter var. *intermedius* (Peebles) Woodruff & Benson

COMMON NAME | None, but may sometimes be called Glen Canyon cactus and pineapple cactus. *Sclerocactus* is from the Greek word *sclero* meaning hard or dry, while *parviflorus* means small-flowered, and *intermedius* means intermediate.

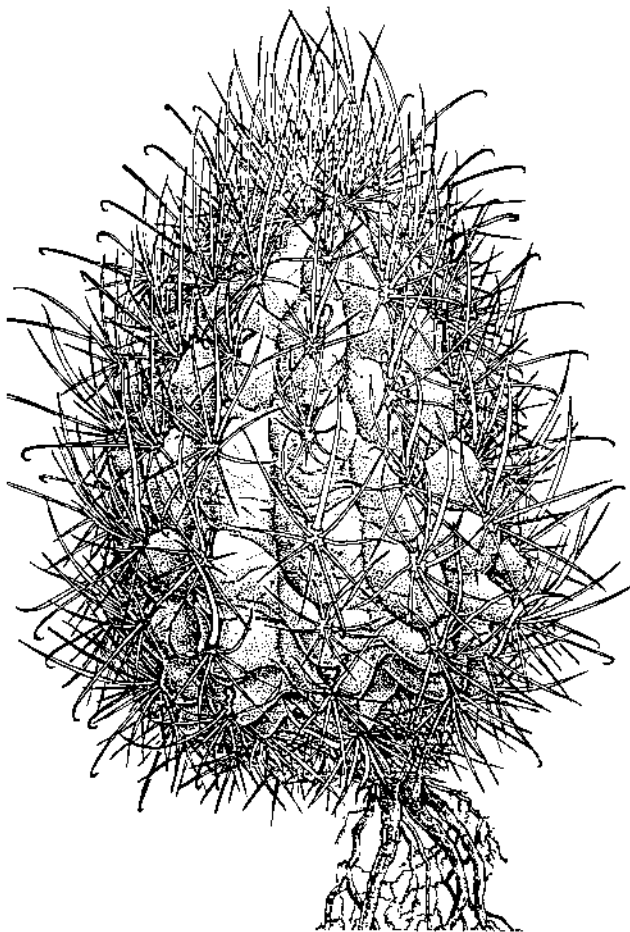
FAMILY (COMMON NAME) | Cactaceae (Cactus Family)

SYNONYMS | *Sclerocactus whipplei* (Engelm. & Bigel.) B. & R. var. *intermedius* (Peebles) L. Benson, *S. intermedius* Peebles, and *S. havasupaiensis* Clover

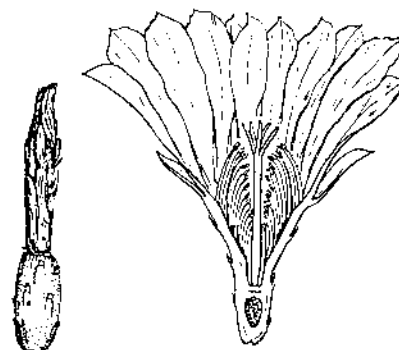
DISTRIBUTION | Variety is endemic to Mohave, Coconino, Navajo, and Apache Counties, Arizona, while the species is known from Colorado, Utah, and Arizona. In Grand Canyon NP it is reported from Little Colorado River, Havasu Canyon, Darwin Plateau below Mt. Huethwali, and the Esplanade west of Tuckup Canyon.

HABITAT | Succulent, perennial cactus. Sandy or gravelly soils in the desert or pinyon-juniper belt, often on red sandstone soils, 3,000 to 5,500 feet, May to June.

LOOK-ALIKES | None



- Stems 10–25 cm high and 7–15 cm in diameter
- Stems usually solitary, but may be branched or clustered
- Ribs 13–15, more or less nipped
- Spines borne on the nipples
- Central spine strongly hooked
- Flowers green, yellow, pink, white, or purple
- Red fruit covered with fringed scales





Closeup of *Sclerocactus parviflorus* var. *intermedius*
— BY N. BRIAN



Habitat — BY N. BRIAN

SCIENTIFIC NAME | *Selaginella watsonii* Underw.

COMMON NAME | Alpine selaginella and Watson's selaginella, but may sometimes be called Watson's spikemoss. *Selaginella* is the Latin diminutive of *Selago*, an ancient name for *Lycopodium*, another genera which the plants resemble. The species name *watsonii* honors Sereno Watson, 1826-1892, camp cook turned naturalist on the Clarence King 40th parallel geological survey in 1868-69. Watson later became a noted taxonomist.

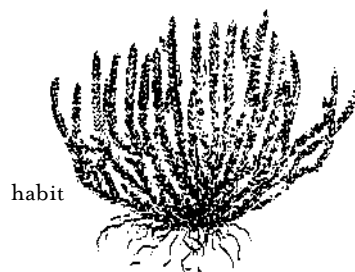
FAMILY (COMMON NAME) | Selaginellaceae (Selaginella or Spike Moss Family)

SYNONYMS | None

DISTRIBUTION | California, Nevada, Oregon, Montana, Utah, and Coconino County, Arizona. In Grand Canyon NP it is reported from the North Rim locations of Kanabownits Valley, Kaibab Basin, and Robber's Roost.

HABITAT | Perennial, mat-forming, evergreen herb. Ledges, talus slopes, rock crevices, and ravines of mountain brush, ponderosa pine, aspen, spruce-fir, lodgepole pine, krummholz, and alpine tundra communities, 7,600 to 8,300 feet.

LOOK-ALIKES | Other species of *Selaginella*, but differs by compact habit, congested leaves, and leaves with short, yellowish, smooth terminal bristles.



habit

fertile leaf



cone



sterile leaf



- Cushion-forming habit
- Moss-like plants
- Leaves minute, numerous, simple, spirally arranged in whorls
- Spore structures produced on specialized fertile leaves
- Spores of different sizes and shapes

SCIENTIFIC NAME | *Silene rectiramea* Robins.

COMMON NAME | Caryophyllaceae (Pink Family)

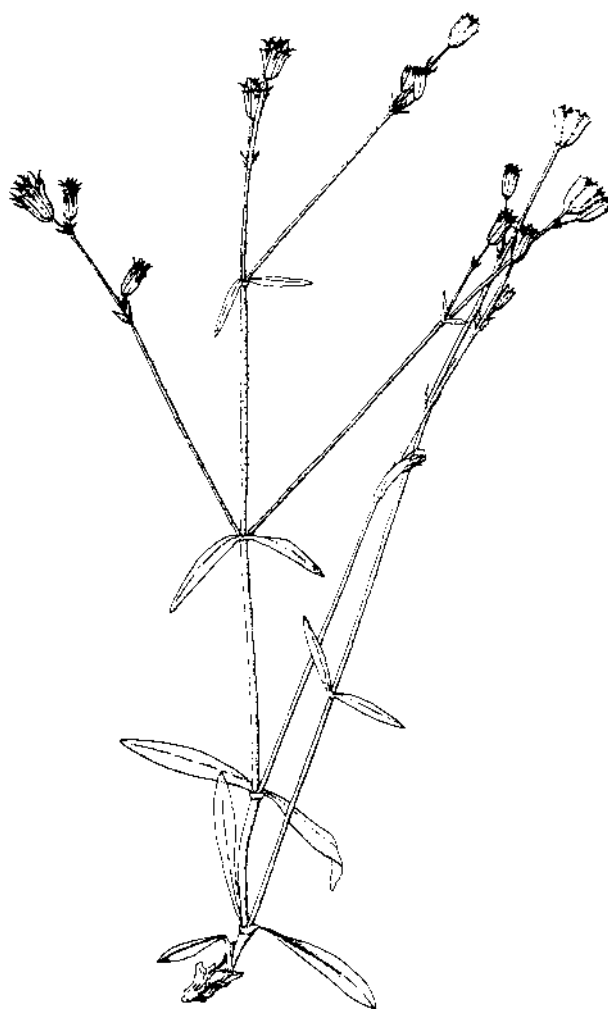
FAMILY (COMMON NAME) | None. *Silene* is often called catchfly or campion. The word may be from the mythological Silenus, intoxicated foster-father of Bacchus, who was covered with foam, in reference to the sticky secretions of many of the species, while *rectiramea* means straight branched (from *recti* meaning straight or upright and *rami* meaning pertaining to branches).

SYNONYMS | None

DISTRIBUTION | Endemic to Grand Canyon NP, Coconino County, Arizona. In Grand Canyon NP known from Waldron Basin in Hermit Canyon, Bright Angel Trail, and New Hance Trail.

HABITAT | Perennial herb. Pinyon-juniper woodland in loamy soils topped by sandstone cobbles, north facing slopes in the Toroweap Limestone and Supai Group, 5,600 to 6,800 feet, May.

LOOK-ALIKES | None, may be confused with other *Silene* species, but differs by perennial habit and petals shallowly lobed or entire.



- Creamy white to lavender-pink, shallowly two-lobed petals
- Delicate, papery calyx
- Elongated, very straight branches
- Opposite, linear leaves



Closeup of *Silene rectiramea*
— BY K. WARREN



General view — BY K. WARREN



Habitat — BY K. WARREN

SCIENTIFIC NAME | *Talinum validulum* Greene.

COMMON NAME | None, but commonly called Tusayan flameflower. *Talinum* is often called flameflower in the East and flameflower in the West. The derivation is obscure, possibly an African name for a similar plant, while *validulum* means strong, well-developed, or diminutively robust.

FAMILY (COMMON NAME) | Portulacaceae (Portulaca Family)

SYNONYMS | None

DISTRIBUTION | Endemic Coconino and Yavapai Counties, Arizona. In Grand Canyon NP it is found from Yaki Point west to Horsethief Tank on the Coconino Plateau, South Rim.

HABITAT | Perennial herb. Within Grand Canyon NP, it is known from rocky, limestone soils in shallow depression, rocky ridge tops, and bedrock outcrops in open, sunny areas within the pinyon-juniper woodland. Elsewhere it is found in flat, open meadows on heavy, rocky to clay soils of weathered basalts in ponderosa pine forests, 5,600 to 7,500 feet, June to July.

LOOK-ALIKES | Similar to *T. parviflorus*, but differs by having stamens generally numbering 10-18 and stems which die back to the root crown in late fall.



- Stamens typically 10-18
- Purplish-pink petals
- Fleshy, short leaves turn bright red in the fall
- Plant is small (less than 10 cm tall)
- Tuberous root



General view of *Talinum validulum*
— BY N. BRIAN



Habitat — BY N. BRIAN

SCIENTIFIC NAME <i>Thelypodopsis purpusii</i> (Brandege) Rollins
COMMON NAME None, but sometimes called Kearney's mustard. <i>Thelypodopsis</i> is from the Greek word meaning resembling <i>Thelypodium</i> , the Greek word for female foot, in reference to the stalk above the receptacle and <i>purpusii</i> is named for Joseph Anton Purpus, 1860-1932, an American botanist.
FAMILY (COMMON NAME) Cruciferae or Brassicaceae (Mustard Family)
SYNONYMS <i>Thelypodium vernale</i> Woot. & Standl., <i>T. purpusii</i> Brandege, <i>Sisymbrium kearneyi</i> Rollins
DISTRIBUTION Texas, New Mexico, Mexico, and Mohave County, Arizona. In Grand Canyon NP it is known from west fork of 150 Mile (Upset) Canyon, and Saddlehorse Canyon. It is also found just north of the park boundary in the Tuweep or Toroweap region in Brady Canyon.
HABITAT Annual herb. Shady areas at the base of cliffs, near large boulders, or in the shade of trees or shrubs, in sandstone or limestone soils, 4,000 to 5,000 feet, May.
LOOK-ALIKES This is the only annual mustard of this group (<i>Thelypodopsis</i> and <i>Thelypodium</i>), but could be confused with two species of biennial <i>Thelypodium</i> (<i>T. integrifolium</i> and <i>T. wrightii</i>) which are found near seeps, springs, and along creeks.

- Strongly ear-shaped leaves clasp the stem
- Weakly developed and deeply lobed rosette of basal leaves
- Upper leaves entire
- Anthers of paired stamens exerted and relatively short, 1mm long
- Petals 4-6 mm long, white to light lavender
- Ascending fruits
- Fruiting plants 30-70 cm tall, single stemmed from base, but may be branched above

SCIENTIFIC NAME | *Thelypteris puberula* (Baker) Morton var. *sonorensis* A. Reid Smith

COMMON NAME | None, but sometimes called Aravaipa wood fern and Sonoran maiden fern. *Thelypteris* means female fern, from *thely* meaning female or maiden and *pteris* meaning fern, *puberula* means minutely pubescent with scarcely elongate hairs, and *sonorensis* means of or from Sonora, Mexico.

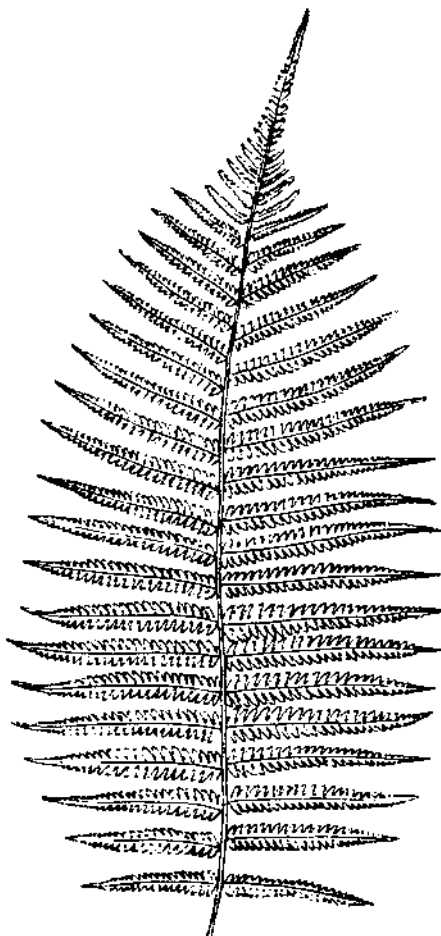
FAMILY (COMMON NAME) | Thelypteridaceae (Thelypteris or Wood Fern Family)

SYNONYMS | *Cyclosorus puberula*, *Dryopteris feei* C. Chr., and *Lastrea augescens* (Link) J. Smith misapplied.

DISTRIBUTION | Southern California, Mexico, and Yavapai, Graham, Pinal, Pima and Coconino Counties, Arizona. In Grand Canyon NP it is reported only from Showerbath Spring in Kanab Canyon (Jett in 1970) at 2,700 feet.

HABITAT | Perennial fern. Moist areas, streams, and cliffs with dripping springs, 2,500 to 3,000 feet.

LOOK-ALIKES | None



- Minutely hairy with tiny, needle-shaped hairs on top of blades
- Thick, long-creeping, scaly prostrate or underground roots which produce shoots
- Fronds light green, papery to leathery

SCIENTIFIC NAME | *Tricardia watsonii* Torr.

COMMON NAME | Three hearts. *Tricardia* is from the Greek words *tri* meaning three and *cardia* meaning heart, in reference to the calyx of three heart-shaped bracts. The species name *watsonii* honors Sereno Watson, 1826-1892, camp cook turned naturalist on the Clarence King 40th parallel geological survey in 1868-69. Watson later became a noted plant taxonomist.

FAMILY (COMMON NAME) | Hydrophyllaceae (Water Leaf Family)

SYNONYMS | None

DISTRIBUTION | Utah, Nevada, California, and Mohave County, Arizona. In Grand Canyon NP it is reported from SB Point and near Muav Caves (CRM 274).

HABITAT | Perennial, low herb. Joshua tree, creosote bush, and other warm and cool desert shrub communities, in shady east facing slopes, in rocky to gravelly loam, 1,400 to 1,500 feet, March to April.

LOOK-ALIKES | None

- *Woody, branching prostrate or underground root which produces shoots*
- *Upper part of root with leaf bases from previous years*
- *Basal rosette of lance-shaped leaves*
- *Few, reduced, alternate leaves on stems*
- *Flower narrowly bell-shaped, white with purple ring around throat and onto the lobes*
- *Three heart-shaped outer bracts*

SCIENTIFIC NAME | *Vanclevea stylosa* (Eastw.) Greene.

COMMON NAME | None.

FAMILY (COMMON NAME) | Compositae or Asteraceae (Aster Family)

SYNONYMS | None

DISTRIBUTION | Utah and Apache, Navajo, and Coconino Counties, Arizona. The genus is monotypic, meaning there is only one species of the genus. It is a Colorado Plateau endemic. In Grand Canyon NP it is reported only from CRM 1.5 R in upper Marble Canyon just below the Paria River confluence.

HABITAT | Perennial shrub. Sandy areas in four-wing saltbush, Mormon tea, sand dropseed, Indian ricegrass, blackbrush, and juniper communities, around 3,800 feet, September.

LOOK-ALIKES | Similar to *Chrysothamnus* (rabbit brush) species, but differs by larger flowers, linear, and curved leaves. The hairs, or pappus, on top of the seed, or akene, are not bristle-like.

- *Sticky branches*
- *Bark tan to white or gray black in age*
- *Leaves linear and curved*
- *Yellow disk flowers*

SCIENTIFIC NAME | *Yucca whipplei* Torr.

COMMON NAME | Our Lord's candle, but also called Whipple Yucca. *Yucca* may be from the Haitian word *yuca*, the root of a casava or manihot plant, from which tapioca is made, perhaps because the *Yucca* has similar large roots, and *whipplei* honors Lt. Amiel Wicks Whipple, 1818-1863, who commanded the Pacific Railroad Survey along the 35th parallel to Los Angeles in 1853-1854.

FAMILY (COMMON NAME) | Agavaceae (Agave Family)

SYNONYMS | *Yucca newberryi* McKelvey

DISTRIBUTION | California and Mohave County, Arizona. In Grand Canyon NP it is reported from Stone Creek (CRM 132), the Colorado River between Fern Glen (CRM 168) downstream to Columbine Falls (CRM 274), Lava Falls Trail, and Tuckup Trail.

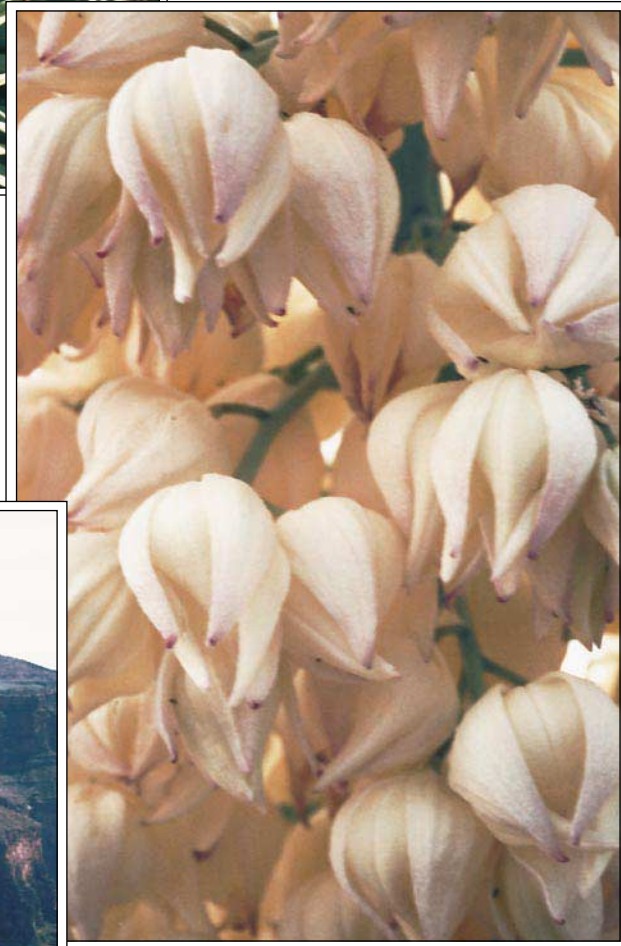
HABITAT | Perennial succulent. Shelves and steep desert talus slopes at lower elevations in the Inner Canyon, on granite, sandstone, and limestone derived soils, 1,500 to 4,000 feet, March to April.

LOOK-ALIKES | None, but may be confused with other *Yucca* species. It differs by having no free marginal fibers on the leaves, leaf margins finely serrate, delayed blooming until the plant is mature, and subsequent death after flowering once, much like similar appearing *Agave* species. It could also be mistaken for *Dasylirion wheeleri* (desert spoon, sotol), a species not found in Grand Canyon NP, which has separate male and female plants and smaller flowers.

- Solitary rosettes, dying after flowering and fruiting
- Leaves in a dense, basal rosette
- Leaves sage-green to bluish in color, tip extremely sharp and margins finely serrate
- Flower stalk about 2.8 m in height
- Flowers cream colored with purple tips, pendant, and pleasingly fragrant



Closeup of *Yucca whipplei* — BY K. WARREN



Close-up of *Yucca whipplei* — BY K. WARREN



Habitat — BY K. WARREN

ACKNOWLEDGEMENTS | Grand Canyon National Park Foundation provided funds for the publication of this rare plant guide, through a grant from the 1999 Annual Grants Program. The Staff of the Fire and Aviation Division and Ralph Jones and Laura Douris from the Division of Interpretation, Grand Canyon NP, gave encouragement for the publication of this guide. Thanks is given to the many individuals who provided illustrations and photographs (see credits following). Jessica of Sullivan Santamaria Design (Flagstaff, Arizona) prepared the final version, making it a professional document.

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ARABIS GRACILIPES | None.

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- THELYPODIOPSIS PURPUSII | None.
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- TRICARDIA WATSONII | None.
- VANGLEVEA STYLOSA | None.
- YUCCA WHIPPLEI | Photographs by Kathy Warren.