

Bee and Insect Associates of San Francisco Bay Region Plants 8.0

“California is the Amazon Basin of bee diversity.”

— California Native Plant Society Executive Director Dan Glusencamp

Compiled by Jeffrey Allen Caldwell in 2020 (iteration of 28 Dec 2020)

Focuses on bees, includes about 500 species recorded from the San Francisco Bay region. A bee list compiled for the region is also available. We have no floral records for a few bees on the list. No doubt there is much more to learn, but this compilation provides an indication of the value of our native plants as resources for insects, notably bees.

The major source originally was the Discover Life web site; having later obtained a copy of Moldenke & Neff’s ecological catalogue of California bees, resulting in a major revision; records added from this source include “M & N” in parenthesis. There are a few comments on other groups of flower-visiting insects with butterflies and moths treated exhaustively in another document.

Most bee larvae feed on pollen, and those most bees (females) are handling pollen to provision their nests; at times bees gather pollen even from wind-pollinated plants. Adult bees usually feed on flower nectar. Flower pollen or nectar are food for many other insects as well, including predatory species. The abbreviation (fq) after a bee floral record indicates plants which seem to be important for the pollen provisioning of the bee nests.

Abies concolor. **White Fir**. May-June.

Bees: Andrenidae: *Andrena ceanothifloris* cretata.

Abronia sp.

Beesa: Apidae: Sunflower Bee (*Diadasia enavata*) (M & N).

Abronia latifolia. **Yellow Sand Verbena**. March-October.

Bees: Andrenidae: *Andrena* spp. Apidae: California Bumblebee (*Bombus californicus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Megachilidae: *Osmia integra*. Indigo Cuckoo Carder Bee (*Stelis calliphorina*).

Abronia maritima. **Red Sand Verbena**. February-December.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Sonoran Bumblebee (*Bombus sonorus*). Pale-marked Long-horned Bee (*Melissodes pallidisignata*) (M & N). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*).

Acer sp. **Maples**.

Bees: Andrenidae: *Andrena nevadensis*. Orange-banded *Andrena* (*Andrena prunorum*). Subtle Miner Bee (*Andrena subtilis*). *Andrena vierecki*.

Acer macrophyllum. **Bigleaf Maple**. April-May. Its flowers are fragrant and produce nectar, attracting many insects.

Bees: Andrenidae: *Andrena chlorura*. Apidae: Honeybee (*Apis mellifera*) n. Fog-belt Bumblebee (*Bombus caliginosus*). Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Butterflies also visit the flowers.

Acer negundo. **Box Elder**. February-March. The flowers are mostly wind-pollinated.

Bees: Andrenidae: *Andrena vandykei*. *Panurginus nigrellus*. Apidae: Honeybee (*Apis mellifera*).(cp). *Nomada obliquella*.

Achillea millefolium. *Achillea borealis arenicola*. *Achillea lanulosa*. **Yarrow**. April-August.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N) (fq). *Andrena columbiana* (M & N). Hippotes's Miner Bee (*Andrena hippotes*). *Andrena knuthiana*. Rose Miner Bee (*Andrena melanochroa*). *Andrena orthocarpi* (M & N). Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena scurra*. Topaz Miner Bee (*Andrena topazana*). Charming Miner Bee (*Calliopsis scitula*). *Perdita claypolei* (M & N). Apidae: Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) [Kaufeldt, 1954]. Red-belted Bumblebee (*Bombus rufocinctus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Eucera actiosa*. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes lutulentus*. Small Long-horned Bee (*Melissodes microstictus*). Pale-marked Long-horned Bee (*Melissodes pallidesignatus*). Sunflower Bee (*Svastra obliqua expurgata*). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*). Hyaline Cellophane Bee (*Colletes hyalinus oregonensis*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). *Hylaeus conspicuus*. Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). *Hylaeus maritimus* (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: *Agapostemon femoratus*. Ultra Green Sweat Bee (*Agapostemon texanus*). Bicolored Striped Sweat Bee (*Agapostemon virescens*). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*. *Lasioglossum allonotus* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*). *Lasioglossum olympiae* (M & N). *Lasioglossum ruidosense*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). *Lasioglossum trizonatum* (M & N). Cuckoo Sweat

Bee (Sphecodes arvensiformis) (M & N). Megachilidae: Anthidium edwardsii. Utah Wool-carder Bee (Anthidium utahense). Red-footed Cuckoo Leaf-cutter (Coelioxys rufitarsis). Dianthidium dubium. Dianthidium ulkei. Dioxys pomonae. Hoplitis fulgida. Hoplitis producta. Common Little Leafcutter Bee (Megachile brevis). Megachile coquilletti. Horn-faced Leafcutter Bee (Megachile fidelis). Broad-handed Leafcutter (Megachile latimanus). Flat-tailed Leafcutter Bee (Megachile mendica). Western Leaf-cutter (Megachile perihirta). Megachile pugnata. Golden-tailed Leafcutter (Megachile relativa). Alfalfa Leafcutter (Megachile rotundata). Megachile subnigra. Colorado Osmia (Osmia coloradensis). Blue Orchard Bee (Osmia lignaria). Small Mason Bee (Osmia pusilla). Stelis laticincta. Montana Cuckoo Carder Bee (Stelis montana).

In a Pinnacles National Monument survey, native bee visits were rated as rare.

UC Bee Lab garden study finds honeybee the most common bee garden visitor.

Beetles: notably Convergent Lady Beetle and California Lady Beetle.

Flies: Syrphidae: Common Oblique Syrphid (Allograpta obliqua) (Hilty). European Drone Fly (Eristalis arbustorum) (Hilty). Drone Fly (Eristalis tenax) (Hilty). Interrupted Hornet Fly (Spilomyia interrupta) (BugGuide). Thick-legged Hoverfly (Syrpitta pipiens) (Hilty). Syrphus ribesii (Hilty). Calligrapher Fly (Toxomerus marginatus) (Hilty).

Acemispom americanus. Lotus glaber. Lotus purshianus. Lotus americanus. **Spanish Clover**. April-July.

Bees: Andrenidae: Perdita trisignata. Apidae: Urbane Digger (Anthophora urbana) (M & N). Crotch's Bumblebee (Bombus crotchii). Western Bumblebee (Bombus occidentalis) (Laine). Yellow-faced Bumblebee (Bombus vosnesenskii). Prickly Ceratina (Ceratina acantha). Arizona Ceratina (Ceratina arizonensis) (M & N). Clarkia Ceratina (Ceratina sequoiae) (M & N). Monk Longhorn (Eucera frater albopilosa) (M & N). Melissodes tepida timberlakei (M & N) (fq). Colletidae: Mesilla Masked Bee (Hylaeus mesillae) (M & N). Halictidae: Halictus tripartitus (M & N). Alkali Bee (Nomia melanderi) (M & N). Megachilidae: Erhorn's Rotund-Resin Bee (Anthidiellum erhorni). Northern Rotund-Resin Bee (Anthidiellum notatum). Anthidium collectum. Anthidium edwardsii. Anthidium illustre. Anthidium jocusum. Anthidium mormonum. Utah Wool-carder Bee (Anthidium utahense). Ashmeadiella aridula astragli. Ashmeadiella cactorum. Ashmeadiella californica. Ashmeadiella timberlakei. Dianthidium dubium. Dianthidium pudicum. Hoplitis howardi. Hoplitis hypocrita. Elderberry Summer Mason Bee (Hoplitis sambuci). Megachile angelarum. Common Little Leaf-cutter Bee (Megachile brevis). Megachile coquilletti. Megachile gentilis. Western Leafcutter Bee (Megachile perihirta). Alfalfa Leafcutter Bee (Megachile rotundata). Osmia cara. Osmia clarescens. Osmia gabrielis. Protosmia rubifloris.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year, rare in another.

Acemispom brachycarpus. Lotus humistratus. **Colchita**. **Short Podded Lotus**. March-June.

Bees: Megachilidae: *Anthidium collectum*. *Anthidium maculosum*. Utah Wool-carder Bee (*Anthidium utahense*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Acmispon glaber. *Lotus scoparius*. **Deerweed**. March-August.

Bees: Andrenidae: *Andrena w-scripta* (M & N). *Perdita trisignata* – (M & N) (fq). Apidae: California Digger (*Anthophora californica*). Short Sun-Digger (*Anthophora curta*) (M & N). *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) – (M & N) (fq). *Anthophorula nitens* (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (fq). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Eucera angustifrons* (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Silver Digger (*Habropoda miserabilis*) (M & N). *Melissodes tepida timberlakei* (M & N) (fq). *Melissodes tessellatus*. *Melissodes velutinus*. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum ovaliceps* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Sphecodes sp. #62 (M & N). Megachilidae: Erhorn's Rotund-Resin Bee (*Anthidiellum erhorni*). Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium collectum* (fq). *Anthidium edwardsii*. *Anthidium illustre*. *Anthidium maculosum*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella timberlakei*. *Dianthidium parvum*. *Dioxys pomonae*. *Dioxys productus*. White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis howardi*. *Hoplitis hypocrita*. Elderberry Summer Mason Bee (*Hoplitis sambuci*). *Megachile angularum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile gentilis*. Alfalfa Leaf-cutter Bee (*Megachile rotundata*). Large Indigo Mason Bee (*Osmia atrocyanea*). Short Mason Bee (*Osmia brevis*). *Osmia cara*. *Osmia clarescens*. Colorado *Osmia* (*Osmia coloradensis*). Blue Mason Bee (*Osmia cyanella*). *Osmia cyanopoda*. Dense-haired Mason Bee (*Osmia densa*). *Osmia gabrielis*. *Osmia granulosa*. *Osmia integra*. Kincaid's Mason Bee (*Osmia kincaidii*). Happy Mason Bee (*Osmia laeta*). *Osmia latisulcata*. *Osmia nanula*. Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia potentillae*. Small Indigo Mason Bee (*Osmia tristella*).

UC Bee Lab garden study finds it an especially good nectar source, does well in poor soils. Got especially honeybees, bumblebees, Megachilidae (leafcutter and mason bees).

In Pinnacles National Monument collecting it proved 6th most popular among bees in 2011, and 20th most popular with bees among plant species.

In early Pinnacles National Monument surveys, native bee visits were rated as common in two years, uncommon in another.

Modenke captured 31 species of bees on the flowers. Convergent Lady Beetle extremely abundant.

Acmispon glaber var. *glaber*. *Lotus scoparius* var. *scoparius*. **Deerweed**. March-July. This is the variety in the San Francisco Bay region and the more widespread variety in the state.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Acmispon grandiflorus. *Lotus grandiflorus*. **Large-leaved Lotus**. April-July.

Bees: California Mountain Digger (*Habropoda depressa*). Megachilidae: *Asmeadiella timberlakei*. *Hoplitis hypocrita*. *Hoplitis producta*. *Megachile angularum*. *Osmia albilateralis*. Large Indigo Mason Bee (*Osmia atrocyanea*). Dense-haired Mason Bee (*Osmia densa*). *Osmia laticulcata*. *Osmia physariae*. *Protosmia rubifloris*.

Acmispon heermannii. *Lotus heermannii*. *Lotus eriophorus*. **Heermann's Lotus**. April-July.

Bees: Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium collectum* (fq). Pacific Wool-carder Bee (*Anthidium palliventre*). *Ashmeadiella aridula*. *Ashmeadiella cactorum*. *Ashmeadiella timberlakei*. *Dianthidium dubium*. *Megachile angularum*. *Megachile gentilis*.

Acmispon heermannii var. *orbicularis*. *Lotus heermannii* var. *orbicularis*. **Round-leaved Heermann's Lotus**. April-July.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Acmispon micranthus. *Lotus hamatus*. **Small Flowered Lotus**. March-June.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

Acmispon parviflorus. *Lotus micranthus*. **Hill Lotus**. March-June.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Acmispon strigosus. *Lotus strigosus*. *Lotus tomentellus*. *Lotus strigosus hirtellus*. **Strigose Lotus**. February-June.

Bees: Andrenidae: *Perdita trisignata* (M & N) (fq). Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus tripartitus*. *Lasioglossum nevadense* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Anthidium jocosum*. *Anthidium maculosum*. *Anthidium mormonum*. Utah

Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella foveata*. *Ashmeadiella timberlakei*. *Atoposmia copelandica*. *Dioxys pacifica*. *Dioxys pomonae*. *Hoplitis grinnelli*. *Hoplitis howardi*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Osmia albolateralis*. California Mason Bee (*Osmia californica*). Dense-haired Mason Bee (*Osmia densa*). *Osmia guadosa*. Happy Mason Bee (*Osmia laeta*). *Osmia latisulcata*. Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia physariae*.

Acmispon wrangelianus. *Lotus subpinnatus*. *Lotus wrangelianus*. **Chilean Trefoil**. March-April.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera actiosa* (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*). Megachilidae: *Anthidium collectum*. Utah Wool-carder Bee (*Anthidium utahense*). Flat-tailed Leafcutter Bee (*Megachile mendica*).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Modenke found Yellow-faced Bumblebee (*Bombus vosnesenskii*) and Peridot Bee (*Augochlorella pomoniella*) very abundant; he captured 11 species of bees on the flowers.

Adenostoma sp. Likely the following species, chamise, is usually meant.

Bees: Apidae: *Anthophora flavocincta*. Lupine Long-horned Bee (*Melissodes lupinus*). Melittidae: *Hesperapis ilicifoliae*.

Adenostoma fasciculatum. **Chamise**. June-August.

Bees: Andrenidae: *Andrena atypica* (M & N). Mock-orange Miner Bee (*Andrena candida*). Cherry Plum Miner (*Andrena cerasifolii*). *Andrena knuthiana*. Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena w-scripta*. Apidae: Honeybee (*Apis mellifera*). Fog-belt Bumble Bee (*Bombus caliginosus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N) (fq). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus*. Nevada Sweat Bee (*Lasioglossum nevadense*). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Sphecodes* sp. #5 (M & N). Megachilidae: *Anthidium jocosum*. Utah Wool-carder Bee (*Anthidium utahense*). *Osmia tristella*. Mellitidae: *Hesperapis ilicifoliae* [M & N – fq].

This was the second most bee-popular plant in years of collecting at Pinnacles National Monument.

In early Pinnacles National Monument surveys, native bee visits were rated as common in three years, uncommon in one year, and rare in one year.

Beetles: 4 sp.

Flies: *Syrphus opinator* (Correa). *Syrphus ribesii* (Correa).

Aesculus californica. **California Buckeye**. May-July.

Bees: Andrenidae: *Andrena* sp. *Andrena trevoris* (M & N). Apidae: Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). California Carpenter Bee (*Xylocopa californica*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*). Halictidae: *Halictus* sp. *Lasioglossum allonotus* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nigrescens* (M & N).

Moldenke (1971) got 5 species of bees on it.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in three years.

Other Hymenoptera: Mymaridae: 7 sp. of specialist wasps known as “fairyflies”.

Extremely popular with butterflies! Also gets moths.

Benseler, R. (1975). FLORAL BIOLOGY OF CALIFORNIA BUCKEYE. *Madroño*, 23(1), 41-53. Retrieved June 4, 2020, from www.jstor.org/stable/41423981

Agastache sp.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N).

Agastache urticifolia. **Nettleleaf Giant Hyssop**. May-June.

Bees: Andrenidae: Apidae: Orange-tipped Wood-digger (*Anthophora terminalis*). Urbane Digger (*Anthophora urbana*). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Western Bumblebee (*Bombus occidentalis*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). California Carpenter Bee (*Xylocopa californica*) (M & N). Megachilidae: White-faced Summer Mason Bee (*Hoplitis albifrons*).

Popular with many butterflies.

Agoseris sp.

Bees: Andrenidae: *Andrena chalyboides* (M & N) (fq) “Oligolectic on *Agoseris* and *Microseris*.”

Andrena subchalybea (M & N) (fq) “Oligolectic on *Agoseris*, early morning.” Apidae: Western Bumblebee (*Bombus occidentalis*). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*). Halictidae: *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum* (M & N). Titus’ *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: *Osmia albolateralis*. *Osmia inurbana*.

Agoseris apargioides. *Senecio goodspeedii*. **Coast Dandelion**. May-August.

Bees: Apidae: Cordley’s Long-horned Bee (*Eucera cordleyi*) (M & N). Colletidae: *Hylaeus maritimus* (M & N). Halictidae: *Halictus tripartitus* (M & N).

Agoseris grandiflora. **California Dandelion**. March-May.

Andrenidae: *Andrena chalybioides*. *Andrena chlorosoma* (M & N) (fq). Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N). Halictidae: *Lasioglossum olympiae* (M & N). Titus’ *Lasioglossum* (*Lasioglossum titusi*) (M & N) (fq).

In a Pinnacles National Monument survey, native bee visits were rated as rare.

Moldenke got 6 species of bees on it with Peridot Bee (*Augochlorella pomoniella*) extremely abundant.

Agoseris heterophylla. **Annual Agoseris**. April-July.

Bees: Andrenidae: *Andrena chalybioides* – (M & N) (fq). *Andrena chlorosoma* – (M & N) (fq). *Andrena olivacea* (M & N). *Andrena orthocarpi*. *Andrena subchalybea* (M & N) (fq). Apidae: *Eucera actiosa* (M & N). Halictidae: *Dufourea sandhouseae* (M & N). Titus’ *Lasioglossum* (*Lasioglossum titusi*) (M & N)(fq). Megachilidae: *Osmia marginipennis*. *Osmia montana*.

Alisma triviale. **Northern Water Plantain**. July-November.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Halictidae: *Halictus ligatus*.

Edward’s Long-horned Bee (*Eucera edwardsii*) (M & N).

Allium sp. Onion.

Bees: Andrenidae: Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena transnigra*. Apidae: Bear-like Digger Bee (*Anthophora ursina*). Black-notched Bumblebee (*Bombus bifarius*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Red-belted Bumblebee (*Bombus rufocinctus*). Van Dyke’s Bumblebee (*Bombus vandykei*). *Eucera actiosa*. Edward’s Long-horned Bee (*Eucera edwardsii*). *Eucera hurdi* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Megachilidae: *Anthidium banningense*. *Chelostoma minutum*. Red-footed Cuckoo Leaf-

cutter (*Coelioxys rufitarsis*). *Hoplitis fulgida*. *Osmia aglaia*. *Osmia albolateralis*. Large Indigo Mason Bee (*Osmia atrocyanea*). *Osmia bakeri*. *Osmia californica*. Yellowish Green Mason Bee (*Osmia calla*). Blue Mason Bee (*Osmia cyanella*). *Osmia exigua*. Kincaid's Mason Bee (*Osmia kincaidii*). *Osmia penstemonis*. Friendly Mason Bee (*Osmia proxima*). Small Mason Bee (*Osmia pusilla*). *Osmia trevoris*.

In a Pinnacles National Monument survey native bee visits were reckoned uncommon (10-100 noted) to rare (less than 10 noted) for this genus.

Bees for Garden Onion likely indicative:

Apidae: Bumblebees (*Bombus* sp.). Colletidae: *Colletes fugidus*. *Colletes e.* Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. *Halictus tripartitus*. Megachilidae: Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*).

Allium acuminatum. **Tapertip Onion**. June-August.

Bees: Apidae: Honeybee (*Apis mellifera*). Dwarf Ceratina (*Ceratina nanula*). Pacific Little Carpenter Bee (*Ceratina pacifica*). Edward's Long-horned Bee (*Eucera edwardsii*). Halictidae: *Halictus tripartitus*. Megachilidae: *Chelostoma minutum*. *Hoplitis hypocrita*. *Osmia bruneri*. Yellowish Green Mason Bee (*Osmia calla*). *Osmia inurbana*. Kincaid's Mason Bee (*Osmia kincaidii*). Small Mason Bee (*Osmia pusilla*).

Allium amplexans. **Narrowleaf Onion**. March-July.

Allium bolanderi. **Bolander's Onion**. May-August.

Allium cratericola. **Cascade Onion**. March-June.

Allium crispum. **Crinkled Onion**. March-June.

Allium diabloense. **Serpentine Onion**. April-June.

Allium dichlamydeum. **Coast Onion**. May-June.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N).

Allium falcifolium **Scytheleaf Onion**. April-July.

Allium fimbriatum. **Fringed Onion**. April-June.

Bees: Megachilidae: *Hoplitis fulgida*. Blue Mason Bee (*Osmia cyanella*). Kincaid's Mason Bee (*Osmia kincaidii*). *Osmia latisulcata*.

In a Pinnacles National Monument survey less than 10 native bee visits were noted in one year to

this species.

Allium hickmanii. **Hickman's Onion**. March-May.

Allium hyalinum. **Glassy Onion**. February-May.

Allium lacunosum. **Pitted Onion**. April-June.

Bees: Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

In early surveys of Pinnacles National Monument, bees were uncommonly (10-100 bees) collected on this species in two years, and rarely (less than 10) in another year.

Allium parryi. **Parry's Fringed Onion**. May-July.

Allium peninsulare. **Mexicali Onion**. May-June.

Allium serra. **Jeweled Onion**. March-May.

Allium sharsmithiae. **Sharsmith's Onion**. March-May.

Allium unifolium. **Oneleaf Onion**. May-June.

Allium validum. **Swamp Onion**. May-June.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Allophyllum divaricatum. *Gilia gilioides*. **Purple False Gilyflower**. April-June.

Determined to be autogamous and self-compatible. Grant & Grant noted its flowers visited by a beefly, *Bombylius lancifer*. Also another beefly, *Lepdianthrax* sp. and a small halictid bee.

Allophyllum gilioides. *Gilia gilioides*. **Dense False Gilyflower**. April-July.

Also determined to be autogamous and self-compatible. Grant & Grant noted one visit by a small beefly to one of its sister species, *Allophyllum violaceum*, in Ventura County.

Amaranthus sp. **Pigweeds**.

Bees: Apidae: *Melissodes thelypodii*.

Amaranthus blitoides. **Prostrate Pigweed**. **Mat Amaranth**. May-November.

Amaranthus californicus. **California Pigweed**. California Amaranth. June-August.

Amaranthus palmeri. **Carelessweed**. August-November.

Ladybeetles.

Amaranthus powelli. **Powell's Amaranth**. July-October.

Ambrosia acanthicarpa. **Annual Burrweed**. September-November.

Ambrosia chamissonis. **Silver Beachweed**. June-July.

Ambrosia psilostachya. **Western Ragweed**. June-November.

Amelanchier sp. **Serviceberry**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena candidiformis*. *Andrena forbesii* (M & N) (fq). Hippotes's Miner Bee (*Andrena hippotes*). Miserable *Andrena* (*Andrena miserabilis*). Pale-faced Miner Bee (*Andrena pallidifovea*). Orange-banded *Andrena* (*Andrena prunorum*). Subtle Miner Bee (*Andrena subtilis*). *Andrena w-scripta*. Apidae: Bear-like Digger Bee (*Anthophora ursina*). Pacific Little Carpenter Bee (*Ceratina pacifica*). Ashy Digger Bee (*Habropoda cineraria*).

Amelanchier alnifolia. **Saskatoon Serviceberry**. June-July.

Amelanchier pallida. **Western Serviceberry**. May-June.

Amelanchier utahensis. **Utah Serviceberry**. April-June.

Bees: Megachilidae: *Osmia montana*.

Ammania coccinea. **Valley Redstem**. July-August.

Flies: Syrphidae: Thick-legged Hoverfly (*Syrpitta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Amorpha sp. False Indigo.

Bees: Andrenidae: Yellow-legged Miner Bee (*Andrena cressonii*). Apidae: *Nomada articulata*.

Amorpha californica. **California False Indigo**. April-July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium maculosum*. Megachile *angelarum*. Common Little Leaf-cutter Bee (*Megachile brevis*).

Amsinckia sp. **Fiddlenecks.**

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Green-bellied Miner Bee (*Andrena chlorogaster*). Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N). Alice's Andrena (*Andrena mackieae*). Pale-faced Miner Bee (*Andrena pallidifovea*). Piper's Miner Bee (*Andrena piperi*). Lonely Miner (*Andrena sola*) (M & N). *Andrena subchalybea* (M & N). *Calliopsis obscurella*. Apidae: California Digger (*Anthophora californica*) (M & N). Crotch's Digger (*Anthophora crotchii*) – (M & N) (fq). Edward's Digger (*Anthophora edwardsii*) – (M & N) (fq) "Polylectic, heavy emphasis of males on *Amsinckia* ." *Anthophora neglecta*. California Bumblebee (*Bombus californicus*). Crotch's Bumblebee (*Bombus crotchii*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). *Ceratina tejonensis* (M & N). Van Dyke's Bumblebee (*Bombus vandykei*). *Clarkia Ceratina* (*Ceratina sequoiae*) (M & N). *Eucera actiosa* (M & N). *Eucera albescens* (M & N). *Eucera amsinckiae* – (M & N) (fq) "Oligolege of *Amsinckia*." *Eucera angustifrons* (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). *Eucera lunata* (M & N). California Mountain Digger (*Habropoda depressa*). Dimorphic Mountain Digger (*Habropoda tritissima*). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). Separated Cuckoo Bee (*Melecta separata callura*) (M & N). Hemphill's Nomad (*Nomada hemphilli*). Colletidae: *Colletes phaceliae*. Halictidae: *Agapostemon femoratus* (M & N). Megachilidae: *Chelostoma phaceliae*. Short Mason Bee (*Osmia brevis*). *Osmia cara*. *Osmia clara*. *Osmia clarescens*. Colorado Osmia (*Osmia coloradensis*). Kincaid's Mason Bee (*Osmia kincaidii*). *Osmia latisulcata*. Blue Orchard Bee (*Osmia lignaria*). *Osmia montana*. Western Forest Mason Bee (*Osmia nemoris*). *Osmia rostrata*. *Protosmia rubifloris*.

Amsinckia douglasiana. **Douglas' Fiddleneck.** March-May.

Bees: Andrenidae: *Andrena anisochlora* (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: California Digger (*Anthophora californica*). Crotch's Digger (*Anthophora crotchii*). Edward's Digger (*Anthophora edwardsii*) – (M & N) (fq) especially males. *Anthophora neglecta*. California Bumblebee (*Bombus californicus*). Black-tailed Bumblebee (*Bombus melanopygus*). *Eucera actiosa* (M & N). *Eucera amsinckiae* – (M & N) (fq). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Edward's Mourning Bee (*Melecta edwardsii*) (M & N). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). Separated Cuckoo Bee (*Melecta separata callura*) (M & N). Hemphill's Nomad (*Nomada hemphilli*). Halictidae: *Agapostemon femoratus*. Megachilidae: *Hoplitis hypocrita*. *Osmia inurbana*. Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). *Osmia rostrata*.

Amsinckia eastwoodii. **Eastwood's Fiddleneck.** March-May.

Bees: Andrenidae: *Andrena misella*. Apidae: Crotch's Digger (*Anthophora crotchii*). Edward's Digger (*Anthophora edwardsii*). *Eucera amsinckiae* (M & N) (fq). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Separated Cuckoo Bee (*Melecta separata callura*) (M & N).

Amsinckia grandiflora. **Large Flowered Fiddleneck**. April-May.

Amsinckia intermedia. **Common Fiddleneck**. February-June.

Bees: Andrenidae: Lonely Miner (*Andrena sola*) (M & N). Apidae: Edward's Digger (*Anthophora edwardsii*) (M & N) (fq) – especially males. Urbane Digger (*Anthophora urbana*) (M & N). *Eucera actiosa* (M & N). *Eucera amisinckiae* (M & N) (fq). *Eucera angustifrons* (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). *Eucera lunata* (M & N). *Eucera zonata* (M & N). Edward's Mourning Bee (*Melecta edwardsii*) (M & N). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). Separated Cuckoo Bee (*Melecta separata callura*) (M & N). Hemphill's Nomad (*Nomada hemphilli*). Halictidae: *Lasioglossum nigrescens* (M & N).

Bees: Megachilidae: *Anthidium collectum*. *Hoplitis fulgida*. Blue Orchard Bee (*Osmia lignaria*).

Amsinckia lunaris. **Bentflower Fiddleneck**. March-June.

Amsinckia lycopsioides. **Tarweed Fiddleneck**. May-June.

Amsinckia menziesii. **Fiddleneck**. March-May.

Bees: Apidae: Crotch's Digger (*Anthophora crotchii*). Edward's Digger (*Anthophora edwardsii*). Black-tailed Bumblebee (*Bombus melanopygus*). Parthenogenic Ceratina (*Ceratina dallatorreana*). Cordley's Long-horned Bee (*Eucera cordleyi*). *Eucera amisinckiae*. Dimorphic Mountain Digger (*Habropoda tritissima*). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Hoplitis hypocrita*. Blue Orchard Bee (*Osmia lignaria*). Little Queen Mason Bee (*Osmia regulina*). *Protosmia rubifloris*.

For bee visitation observations, this species was the 20th most popular in 2011 and 9th most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as generally uncommon to sometimes rare.

Amsinckia retrorsa. **Rigid Fiddleneck**. February-May.

Amsinckia spectabilis. **Seaside Fiddleneck**. April-May.

Bees: Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Amsinckia spectabilis var. *spectabilis*. *Amsinckia scouleri*. *Amsinckia celsa*. **Seaside Fiddleneck**. April-May.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Amsinckia tessellata. **Bristly Fiddleneck**. March-June.

Bees: Apidae: *Anthophora petrophila* (M & N).

Amsinckia vernicosa. **Green Fiddleneck**. March-May.

Anaphalis margaritacea. **Pearly Everlasting**. June-August.

Bees: Andrenidae: *Andrena columbiana*. Orange-banded *Andrena* (*Andrena prunorum*).

Apidae: Black-notched Bumblebee (*Bombus bifarius*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Small Long-horned Bee (*Melissodes microstictus*). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*). Modest Masked Bee (*Hylaeus modestus*). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. *Lasioglossum anhypops*. Megachilidae: *Osmia paradisiaca*. Small Mason Bee (*Osmia pusilla*).

In a Pinnacles National Monument survey, native bee visits were rated as rare.

Angelica sp.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Angelica californica. **California Angelica**. June-July.

Angelica capitellata. *Sphenosciadium capitellatum*. **Grayswamp Whiteheads**. July-August.

Bees: Andrenidae: *Andrena columbiana*. Western Red-legged Miner Bee (*Andrena medionitens*).

Apidae: Black-notched Bumblebee (*Bombus bifarius*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Kincaid's Cellophane Bee (*Colletes kincaidii*). Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*).

Beetles.

Angelica hendersonii. **Coast Angelica**. May-August.

Angelica linearloba. **Poison Angelica**. June-August.

Angelica tomentosa. **Woolly Angelica**. June-August.

Bees: Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus*). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*).

Halictidae: Sphecodes #55 (M & N). Megachilidae: Heriades occidentalis.

Anisocarpus madioides. Madia madioides. **Woodland Madia**. April-July.

Aquilegia sp. **Columbine**.

Bees: Apidae: Sitka Bumblebee (*Bombus sitkensis*) (M & N).

Aquilegia eximia. **Serpentine Columbine**. May-October.

Hummingbirds.

Aquilegia formosa. **Western Columbine**. March-May.

Bees: Fog-belt Bumblebee (*Bombus caliginosus*). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N).

Moldenke captured Fog-belt Bumblebee (*Bombus caliginosus*) on its flowers.

Hummingbirds.

Antirrhinum sp. **Snapdragon**.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Megachilidae: European Woolcarder (*Anthidium manicatum*). *Osmia juxta*. *Osmia latisulcata*.

Antirrhinum cornutum. *Sairocarpus cornutus*. **Spurred Snapdragon**. June-September.

Antirrhinum kelloggii. *Neogaerrhinum strictum*. **Climbing Snapdragon**. March-May.

Antirrhinum multiflorum. *Sairocarpus multiflorus*. **Chaparral Snapdragon**. May-July.

Bees: Megachilidae: *Anthidium illustre*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year and rare in another year.

Visited by hummingbirds.

Antirrhinum vexillocalyculatum. *Sairocarpus vexillocalyculatus*. **Wiry Snapdragon**. June-July.

Bees: Apidae: *Anthophora* sp. *Bombus* sp. *Ceratina* sp. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Megachilidae: *Anthidium* sp. *Ashmeadiella* sp. *Dianthidium* sp. *Hoplitis* sp.

Osmia sp.

OYAMA, R., JONES, K., & BAUM, D. (2010). Sympatric Sister Species of Californian Antirrhinum and Their Transiently Specialized Pollinators. *The American Midland Naturalist*, 164(2), 337-347. Retrieved June 3, 2020, from www.jstor.org/stable/40983376

Apiaceae. Carrot Family.

Bees: Andrenidae: *Andrena pallidiscopa pallidiscopa* (M & N) (fq) “Oligolectic on vernal Umbelliferae.”

Apocynum sp. **Dogbane.**

Bees: Andrenidae: *Andrena fragilis*. Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Colletidae: Modest Masked Bee (*Hylaeus modestus*). Megachilidae: California Mason Bee (*Osmia californica*).

Apocynum androsaemifolium. **Spreading Dogbane.** May-September.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*). Honeybee (*Apis mellifera*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). *Nomada articulata*. Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Maskee (*Hylaeus modestus*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*. *Lasioglossum trizonatum* (M & N). Megachilidae: *Hoplitis producta*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*. *Megachile frigida*. *Megachile gemula*. *Megachile melanophaea*. Western Leafcutter (*Megachile perihirta*). *Megachile pugnata*. Golden-tailed Leafcutter (*Megachile relativa*). *Megachile texana*. Blue Mason Bee (*Osmia cyanella*).

Apocynum cannabinum. **Indian Hemp.** June-August.

Bees: Apidae: Honeybee (*Apis mellifera*). Colletidae: Slender-faced Masked Bee (*Hylaeus leptcephalus*). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus*). Punctate Spathulate-Masked Bee (*Hylaeus punctatus*). Megachilidae: Patchwork Leafcutter Bee (*Megachile centuncularis*). Alfalfa Leaf-cutter (*Megachile rotundata*). *Megachile texana*.

Flies: Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Apyllon uniflorum. Orobanche uniflora. **Yarrow Broomrape.** April-July.

Bees: Megachilidae: *Ashmeadiella timberlakei*.

Arabis sp. **Rock-cress.** Many now assigned to *Boechera* or *Turritis*.

Bees: Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N).

Arabis blepharophylla. **Coast Rock Cress**. February-May.

Arabis pycnocarpa. **Creamflower Rockcress**. March-July.

Aralia californica. **California Spikenard**. June-September.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Colletidae: Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N).

Arbutus menziesii. **Madrone**. April-May.

Bees: Andrenidae: *Andrena chlorura*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumble Bee (*Bombus vosnesenskii*). *Eucera lunata* (M & N). California Mountain Digger (*Hapropoda depressa*).

Flies: Greater Bee-fly (*Bombylius major*).

Arctostaphylos spp. **Manzanita**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena arctostaphylae* – (M & N) “Oligolectic to *Arctostaphylos*, apparently.” Sandpit Mining Bee (*Andrena barbilabris*). Caerulean Miner Bee (*Andrena caerulea*). Mock-orange Miner Bee (*Andrena candida*). *Andrena candidiformis*. *Andrena ceanothifloris*. Cherry Plum Miner (*Andrena cerasifolii*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorura*. *Andrena cleodora* (M & N). *Andrena cristata*. Copper-tinted Miner Bee (*Andrena cupreotincta*). Dark-tailed *Andrena* (*Andrena fuscicauda*). *Andrena hermosa*. *Andrena latifrons*. Rose Miner Bee (*Andrena melanochoa*). Small Green Miner Bee (*Andrena microchlora*). Alice's *Andrena* (*Andrena mackieae*). *Andrena monogonoparia*. *Andrena nemophilae* (N & M). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena obscuripostica*. *Andrena omninigra*. *Andrena principalis*. Willow Mining Bee (*Andrena salicifloris*) (M & N). Lonely Miner (*Andrena sola*) (M & N). *Andrena striatifrons* (M & N). *Andrena torulosa* (M & N). *Andrena transnigra*. *Andrena vandykei*. *Andrena w-scripta*. *Panurginus nigrellus* (M & N). Apidae: Edward's Digger (*Anthophora edwardsii*). *Anthophora neglecta*. Pacific Digger (*Anthophora pacifica*). Urbane Digger (*Anthophora urbana*) (M & N). Bear-like Digger Bee (*Anthophora ursina*). Black-notched Bumblebee (*Bombus bifarius*). Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumble Bee (*Bombus vosnesenskii*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Ceratina tejonensis*. *Eucera acerba* – (M & N) “Apparently specific to *Arctostaphylos* spp.” Monk Longhorn (*Eucera frater*). *Eucera lunata*. Ashy Digger Bee (*Hapropoda cineraria*) – (M & N) “Probably an oligolectic of *Arctostaphylos*.” California

Mountain Digger (*Habropoda depressa*). Dimorphic Mountain Digger (*Habropoda tritissima*). Pacific Cuckoo Bee (*Melecta pacifica*). Separated Cuckoo Bee (*Melecta separata callura*) (M & N). *Melissodes tepida timberlakei* (M & N). California Carpenter Bee (*Xylocopa californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*). *Hylaeus nunenmacheri* (M & N). Halictidae: *Dufourea mulleri*. *Halictus tripartitus*. *Lasioglossum allonotus* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum orthocarpi* (M & N). *Lasioglossum trizonatum* (M & N). Megachilidae: *Anthidium maculosum*. *Osmia albolateralis*. Large Indigo Mason Bee (*Osmia atrocyanea*). Colorado Osmia (*Osmia coloradensis*). Dense-haired Mason Bee (*Osmia densa*). *Osmia granulosa*. *Osmia latisulcata*. Blue Orchard Bee (*Osmia lignaria*). *Osmia montana*. Black-bearded Mason Bee (*Osmia nigrobarbata*). Blueberry Bee (*Osmia ribibloris*). *Protosmia rubifloris*.

UC Bee Lab garden study finds low but consistent bumblebee visitation especially.

Flies: Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Correa). *Eupeodes fumipennis* (Correa) (fq). Bird Hover Fly (*Eupeodes volucris*) (Correa) (fq). *Lapposyrphus* spp. (Correa). *Sphecomyia vittata* (Correa). *Syrphus opinator* (Correa) (fq). *Syrphus ribesii* (Correa) (fq).

Arctostaphylos andersonii. Heartleaf Manzanita. November-May.

Arctostaphylos auriculata Mount Diablo Manzanita. January-March.

Arctostaphylos bakeri. Baker's Manzanita. February-March.

Arctostaphylos canescens. Hoary Manzanita. January-April.

Arctostaphylos columbiana. **Redwood Manzanita**. February-March.

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). California Mountain Digger (*Habropoda depressa*).

Arctostaphylos crustacea. **Brittleleaf Manzanita**. January-March.

Andrenidae: *Andrena arctostaphylae* (M & N). *Andrena chalybaea* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena chlorura*. *Andrena vandykei* (M & N). Apidae: Pacific Digger (*Anthophora pacifica*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Eucera lunata* (M & N). *Nomada* spp. (M & N).

Moldenke captured 12 bee species on the flowers; Anna's Hummingbird extremely abundant.

Arctostaphylos densiflora. **Vine Hill Manzanita**. February-April.

Bees: Andrenidae: *Andrena knuthiana*. Apidae: Black-tailed Bumblebee (*Bombus melanopygus*) (Flora, Fall 2020). California Mountain Digger (*Habropoda depressa*). Megachilidae: Blue

Orchard Mason Bee (*Osmia lignaria*).

Arctostaphylos franciscana. **Franciscan Manzanita**. February-April.

Arctostaphylos glandulosa. **Eastwood Manzanita**. January-March.

Bees: Andrenidae: *Andrena angustella* (M & N). *Andrena chlorura*. *Andrena w-scripta* (M & N).
Apidae: Urbane Digger (*Anthophora urbana*) (M & N) (fq). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).
Sphecodes #63 (M & N).

Arctostaphylos glauca. **Bigberry Manzanita**. January-February.

Bees: Andrenidae: *Andrena angustella* (M & N) *Andrena arctostaphylae* (M & N). Mock-orange Miner Bee (*Andrena candida*). Cherry Plum Miner (*Andrena cerasifolii*). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena cristata*. *Andrena vandykei* (M & N). Apidae: Pacific Digger (*Anthophora pacifica*). Black-tailed Bumblebee (*Bombus melanopygus*). *Eucera amisinckiae* (M & N). Halictidae: *Lasioglossum nigrescens* (M & N). Megachilidae: Blueberry Bee (*Osmia ribifloris*).

Arctostaphylos glutinosa. **Schreiber's Manzanita**. March-April.

Arctostaphylos hispidula. **Howell's Manzanita**. March-April.

Arctostaphylos hookeri. **Hooker's Manzanita**. January-April.

Bees: Andrenidae: *Andrena submaura*.

Arctostaphylos imbricata. **San Bruno Mountain Manzanita**. February-May.

Arctostaphylos manzanita. **Common Manzanita**. January-March.

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*).

Arctostaphylos montana. **Mount Tamalpais Manzanita**. February-April.

Arctostaphylos montaraensis. **Montara Manzanita**. January-March.

Arctostaphylos nevadensis. **Pinemat Manzanita**. January-February. Approaches our area closely.

Bees: Andrenidae: Copper-tinted Miner Bee (*Andrena cupreotincta*) (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N).

Arctostaphylos nummularia. **Glossyleaf Manzanita**. January-May.

Arctostaphylos ohloneana. **Ohlone Manzanita**. February-March.

Arctostaphylos pacifica. **Pacific Manzanita**. February-April.

Arctostaphylos pajaroensis. **Pajaro Manzanita**. December-March.

Arctostaphylos pallida. **Oakland Hills Manzanita**. December-March.

Arctostaphylos patula. **Greenleaf Manzanita**. January-February.

Bees: Andrenidae: *Andrena candidiformis*. *Andrena ceanothifloris* (M & N). *Andrena ceanothifloris cretata*. Cherry Plum Miner (*Andrena cerasifolii*). *Andrena chlorura*. *Andrena cleodora*. Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena cristata*. Dark-tailed *Andrena* (*Andrena fuscicauda*). *Andrena obscuripostica*. *Andrena w-scripta* (M & N). Apidae: Fernald's Cuckoo Bumblebee (*Bombus flavidus*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). *Ceratina punctigena* (M & N). Ashy Digger Bee (*Habropoda cineraria*). Dimorphic Mountain Digger (*Habropoda tritissima*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). *Hylaeus nunenmacheri*. Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: *Lasioglossum mellipes* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum ovaliceps* (M & N). Megachilidae: Large Indigo Mason Bee (*Osmia atrocyanea*). *Osmia clarescens*. Dense-haired Mason Bee (*Osmia densa*). Kincaid's Mason Bee (*Osmia kincaidii*). *Osmia montana*. Blueberry Bee (*Osmia ribifloris*). *Protosmia rubifloris*.

Arctostaphylos pumila. **Sandmat Manzanita**. February-May.

Bees: Andrenidae: *Andrena arctostaphylae*.

Arctostaphylos pungens. **Pointleaf Manzanita**. January-February.

Bees: Andrenidae: *Andrena arctostaphylae* (M & N). *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena cristata*. *Andrena principalis*. *Andrena vandykei* (M & N). *Andrena w-scripta* (M & N). *Panurginus gracilis*. Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum mellipes* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). Blueberry Bee (*Osmia ribifloris*).

For bee visitation observations, this species was the 19th most popular in 2011, but not in the top 25 most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year and uncommon in another year.

Arctostaphylos regismontana. **Kings Mountain Manzanita**. January-April.

Arctostaphylos sensitiva. **Glossyleaf Manzanita**. January-April.

Arctostaphylos silvicola. **Silverleaf Manzanita**. February-March.

Arctostaphylos standordiana. **Stanford's Manzanita**. January-April.

Arctostaphylos tomentosa. **Woollyleaf Manzanita**. January-March.

Bees: Apidae: Honeybee (*Apis mellifera*).

Arctostaphylos uva-ursi. **Bearberry**. March-June.

Bees: Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*). Blue Orchard Bee (*Osmia lignaria*).

Arctostaphylos virgata. **Marin Manzanita**. January-March.

Arctostaphylos viscida. **Sticky Whiteleaf Manzanita**. January-February.

Bees: Andrenidae: *Andrena candidiformis*. *Andrena ceanothifloris* *cretata*. Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Arctostaphylos viscida ssp. *mariposa*. *Arctostaphylos mariposa*. Mariposa Manzanita. January-February.

Bees: Andrenidae: *Andrena arctostaphylae* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena chlorura* (M & N). *Andrena vandykei* (M & N). *Andrena w-scripta* (M & N). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Eucera angustifrons* (M & N). *Eucera lunata* (M & N). Ashy Digger Bee (*Habropoda cineraria*) (M & N).

Arctostaphylos x campbelliae.

Arenaria sp. **Sandworts**. The rest of ours are now *Minuartia* while others elsewhere in the state are assigned to *Eremogone*.

Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N).

Argemone sp. **Prickly Poppy**.

Bees: Andrenidae: Orange-banded *Andrena* (*Andrena prunorum*) (M & N) (fq).

Argemone munita. **Prickly Poppy**. August.

Bees: Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N).

Arenaria paludicola. **Marsh Sandwort**. May-August.

Armeria maritima ssp. *californica*. *Armeria californica*. **California Seapink**. May-June.

Colletidae: Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N). Hyaline Cellophane Bee (*Colletes hyalinus oregonensis*) (M & N).

Arnica sp. **Arnica**.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N).

Arnica cordifolia. **Heartleaf Arnica**. May-June.

Arnica dealbata. **Mock Leopardbane**. June-August

Arnica discoidea. **Rayless Arnica**. April-June.

Arnica longifolia. **Seep Spring Arnica**. June-July.

Artemisia sp.

Bees: Apidae: *Anthophora flavocincta*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) (M & N) (fq). Black-notched Bumblebee (*Bombus bifarius*) (M & N). *Melissodes bimatrix*. *Melissodes hurdi*. Small Long-horned Bee (*Melissodes microstictus*). Sunflower Bee (*Svastra obliqua expurgata*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

Artemisia californica. **California Sagebrush**. April-October.

Bees: Megachilidae: *Anthidium illustre*.

Artemisia douglasiana. **California Mugwort**. May-October.

Artemisia dracunculul. **Wild Tarragon**. August-October.

Artemisia ludoviciana. **Silver Wormwood**. February-March.

Artemisia pycnocephala. **Beach Sagewort**. May-August.

Artemisia suksdorfii. **Coastal Mugwort**. June-September.

Asclepias sp. **Milkweeds**.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). Clarkia Ceratina (*Ceratina sequoiae*) (M & N). *Eucera actiosa* (M & N). Sunflower Bee (*Diadasia enavata*) (M & N). Ochraceous Chimney Bee (*Diadasia ochracea*). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Robust Long-horned Bee (*Melissodes robustior*). *Melissodes sternsi* (M & N). *Melissodes tepida timberlakei* (M & N). *Melissodes thelypodii*. Valley Carpenter Bee (*Xylocopa varipuncta*) (M & N). California Carpenter Bee (*Xylocopa californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Megachilidae: Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*). Flat-tailed Leafcutter Bee (*Megachile mendica*). Bufflehead Mason Bee (*Osmia bucephala*).

In a Pinnacles National Monument survey, native bee visits were rated as uncommon.

Beetles: Red Milkweed Beetles (*Tetraopes* spp. may be seen perched on the plants; their larvae eat the roots).

Asclepias californica. **California Milkweed**. April-July.

Asclepias cordifolia. **Purple Milkweed**. March-July.

Asclepias eriocarpa. **Indian Milkweed**. June-August.

Bees: Apidae: *Anthophora flavocincta*. Urbane Digger (*Anthophora urbana*) (M & N). California Bumblebee (*Bombus californicus*). Crotch's Bumblebee (*Bombus crotchii*). *Melissodes sternsi*. *Melissodes tepida timberlakei*. Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus gaudialis*) (M & N). Halictidae: *Lasioglossum incompletum* (M & N). Megachilidae: White-faced Summer Mason Bee (*Hoplitis albifrons*). Elderberry Summer Mason Bee (*Hoplitis sambuci*). Common Little Leaf-cutter Bee (*Megachile brevis*).

Asclepias fascicularis. *Asclepias mexicana*. **Narrowleaf Milkweed**. June-September.

Andrenidae: Mock-orange Miner Bee (*Andrena candida*). Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Crotch's Bumblebee (*Bombus crotchii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Clarkia Ceratina (*Ceratina sequoiae*) (M & N). *Eucera actiosa* (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Lasioglossum incompletum*. Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum regulariforme* (M & N). Sphecodes #64. Megachilidae: Common Little Leafcutter Bee

(*Megachile brevis*).

Also gets many butterflies, wasps, and beetles.

Moldenke captured 11 bee species on it. Very popular with butterflies.

Asclepias solanoana. **Serpentine Milkweed**. May-July.

Asclepias speciosa. **Showy Milkweed**.

Bees: Apidae: Honeybee (*Apis mellifera*). Crotch's Bumblebee (*Bombus crotchii*). Black-tailed Bumblebee (*Bombus melanopygus*). Halictidae: *Lasioglossum kincaidii* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum trizonatum* (M & N). Megachilidae: Common Little Leafcutter Bee (*Megachile brevis*). *Megachile coquilletti*. *Megachile gemula*. *Megachile gentilis*. Western Leafcutter (*Megachile perihirta*). *Megachile texana*.

Asteraceae. Sunflower Family. Many are difficult for most insect collectors to identify.

This is one of the very most bee-popular families of plants.

Bees: Andrenidae: *Andrena chlorosoma* (M & N) (fq) "Collects pollen exclusively from Cichoriae [dandelion tribe] ...". *Andrena citrinihirta* (M & N) "Oligolectic on fall composites." *Andrena columbiana* (M & N) "Oligolectic on composites." *Andrena isocomae* (M & N) (fq) "Oligolectic on autumnal compositae." *Andrena olivacea* (M & N) (fq) "Oligolectic on Cichoreae [dandelion tribe]." *Andrena sublayiae* (M & N) (fq) "Oligolectic on vernal Compositae." Apidae: *Anthophora petrophila* (M & N) "Oligolege of composites." Urbane Digger (*Anthophora urbana*) (M & N) "Polylectic, females emphasize composite pollen." Great Northern Bumblebee (*Bombus fervidus*) (M & N) – males "almost exclusively on fall composites." Western Bumblebee (*Bombus occidentalis*) (M & N) – "males with big emphasis on composites." Red-belted Bumblebee (*Bombus rufocinctus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N) said to like "especially composites". Sunflower Bee (*Diadasia enavata*) (M & N) – "oligolege of *Helianthus* and other composites". Agile Long-horned Bee (*Melissodes agilis*) (M & N) – "Specific to *Helianthus* and other composites." *Melissodes appressus* (M & N) – "Specific to fall composites, particularly to *Haplopappus* and *Gutierrezia*." *Melissodes bimatrix* (M & N) – "Oligolectic on *Chrysothamnus* and *Haplopappus*." *Melissodes grindeliae* (M & N) – "Oligolege of summer composites, presumably related to *Chrysothamnus*." *Melissodes hurdi* (M & N) – "Oligolege of late summer composites." *Melissodes lustrus* (M & N) – "Oligolege of *Haplopappus* and *Chrysothamnus*." *Melissodes lutulentus* (M & N) – "Oligolege on summer composites." *Melissodes melanurus* (M & N) – "Oligolege of summer and fall composites." Small Long-horned Bee (*Melissodes microstictus*) (M & N) – Oligolege of a wide variety of summer composites." *Melissodes minisculus* (M & N) – "Probably an oligolege on summer composites on the basis of its close relatives." *Melissodes moorei* (M & N) – "Oligolectic on summer composites." *Melissodes nigracauda* (M & N) – "Perhaps oligolectic on *Stephanomeria*." Pale-marked Long-horned Bee (*Melissodes pallidesignata*) (M & N) – "Oligolege of summer composites." *Melissodes paululus* (M & N) – "Oligolege of summer

composites.” *Melissodes personatellus* (M & N) – “Oligolege of fall composites.” Robust Long-horned Bee (*Melissodes robustior*) (M & N) – “Oligolectic on summer composites.” *Melissodes sternsi* (M & N) – “Oligolectic on summer composites.” *Melissodes velutinus* (M & N) – “Oligolectic on Compositae perhaps also collecting pollen from *Eriastrum*.” Sunflower Bee (*Svastra obliqua expurgata*) (M & N) – “Oligolege of sunflowers.” California Cuckoo Bee (*Xeromelecta californica*) (M & N) “Polylectic with emphasis on fall composites.” *Zacosmia maculata* (M & N) – “Rather specific to fall composites for nectar.”

Aster sp. **Asters.** Many reassigned to other genera, especially *Symphotrichum*; one of ours to *Eurybia*.

Bees: Andrenidae: *Andrena cleodora* (M & N). *Perdita ciliata* (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Anthophorula nitens* (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). Great Northern Bumblebee (*Bombus fervidus*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*) (M & N). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke’s Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Slevin’s Cellophane Bee (*Colletes slevini*) (M & N).

Asteraceae. **Aster Family.** Many entomological observations are generalized, this is a large family of which many species are not easily distinguished by naturalists.

Colletidae: *Colletes angelicus* (M & N): especially those of late summer and fall. Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N): “especially summer/fall species”. Ochraceous Cellophane Bee (*Colletes ochraceus*) (M & N): “perhaps specific to fall composites”. Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N): “specific to autumnal compositae”.

Astragalus sp. **Milkvetch.**

Bees: Andrenidae: *Andrena buckelli*. Caerulean Miner Bee (*Andrena caerulea*). *Andrena chapmanae*. Yellow-legged Miner Bee (*Andrena cressonii*). Lupine Miner Bee (*Andrena lupinorum*). *Andrena nigripes*. *Andrena olivacea* (M & N). *Andrena orthocarpi*. *Andrena palpalis*. *Andrena suavis*. *Panurginus nigrihirtus* (M & N). Apidae: California Digger (*Anthophora californica*). Crotch’s Digger (*Anthophora crotchii*). Edward’s Digger (*Anthophora edwardsii*) (M & N) (fq). *Anthophora neglecta*. Pacific Digger (*Anthophora pacifica*). *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) (M & N). Bear-like Digger Bee (*Anthophora ursina*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Crotch’s Bumblebee (*Bombus crotchii*). Great Northern Bumblebee (*Bombus fervidus*). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus*

vosnesenskii). *Eucera albescens*. *Eucera californica*. Edwards's Long-horned Bee (*Eucera edwardsii*). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Striped Long-horned Bee (*Eucera virgata*) (M & N). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). *Dufourea mulleri*. Wide-striped Sweat Bee (*Halictus farinosus*) (M & N) (fq). Megachilidae: *Anthidium collectum*. *Ashmeadiella bigeloviae*. *Dioxys pomonae*. *Hoplitis hypocrita*. *Hoplitis producta*. *Megachile gemula*. Short Mason Bee (*Osmia brevis*). Bufflehead Mason Bee (*Osmia bucephala*). Yellowish Green Mason Bee (*Osmia calla*). *Osmia clarescens*. Dense-haired Mason Bee (*Osmia densa*). *Osmia granulosa*. *Osmia inurbana*. *Osmia juxta*. *Osmia latisulcata*. *Osmia montana*. *Osmia nifoata*. Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia paradisica*. *Osmia physariae*. *Osmia trevoris*. *Protosmia rubifloris*.

Astragalus allochrous. **Halfmoon Milkvetch**. April.

Astragalus asymmetricus. **San Joaquin Milkvetch**. April-July.

Astragalus breweri. **Brewer's Milkvetch**. April-June.

Astragalus claranus. **Clara Hunt's Milkvetch**. March-May.

Astragalus clevelandii. **Cleveland's Milkvetch**. June-September.

Astragalus didymocarpus. **Two-seeded Milkvetch**. March-June.

Astragalus douglasii. [*Astragalus parishii*]. **Douglas' Milkvetch**. April-June. Note: var. *parishii* is a southern California variety; records for it included here, possibly relevant.

Bees: Apidae: Crotch's Digger (*Anthophora crotchii*). Short Sun-Digger (*Anthophora curta*). Edward's Digger (*Anthophora edwardsii*). Urbane Digger (*Anthophora urbana*) (M & N). California Bumblebee (*Bombus californicus*). Crotch's Bumblebee (*Bombus crotchii*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). Valley Carpenter Bee (*Xylocopa varipuncta*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Lasioglossum incompletum* (M & N) [for var. *parishii*]. Megachilidae: *Anthidium illustre*. *Anthidium maculosum*. *Hoplitis hypocrita*. *Hoplitis producta*. *Megachile angularum*. Western Leafcutter (*Megachile perihirta*). Large Indigo Mason Bee (*Osmia atrocyanea*). *Osmia clarescens*. *Osmia cobaltina*. Dense-haired Mason Bee (*Osmia densa*). Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia physariae*. *Osmia visenda*.

Astragalus gambelianus. **Dwarf Locoweed**. March-June.

Astragalus lentiginosus. **Rattle Pod**. May-June.

Bees: Apidae: *Eucera albescens*.

Astragalus nuttallii. **Ocean Bluff Milkvetch**. January-November.

Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N) [var. *vigatus*].

Astragalus oxyphysus. **Stanislaus Milk Vetch**. **Mt. Diablo Milkvetch**. March-June.

Bees: Apidae: Edward's Digger (*Anthophora edwardsii*) – (M & N) (fq).

Astragalus pycnostachyus. **Marsh Milkvetch**. June-October.

Astragalus rattanii. **Rattan's Milkvetch**. April-July.

Astragalus tener. **Alkali Milkvetch**. April-May.

Bees: Megachilidae: *Anthidium collectum*.

Baccharis sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena orthocarpi*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena perarmata* (M & N) (fq). Clover *Andrena* (*Andrena plana*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena scurra*. *Andrena semipunctata* (M & N). Lonely Miner (*Andrena sola*). *Andrena vandykei*. *Perdita interserta*. *Panurginus gracilis* (M & N). *Panurginus nigrellus* (M & N). Apidae: *Anthophora petrophila*. Edward's Bumblebee (*Bombus edwardsii*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Ochraceous Chimney Bee (*Diadasia ochracea*). *Melissodes thelypodii*. California Carpenter Bee (*Xylocopa californica*). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Rudbeckia Masked Bee (*Hylaeus rudbeckiae*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Dieunomia nevadensis*. *Halictus tripartitus* (M & N). Megachilidae: Erhorn's Rotund-Resin Bee (*Anthidiellum erhorni*). *Osmia granulosa*.

Baccharis glutinosa. *Baccharis douglasii*. **Salt Marsh Baccharis**. June-October. Note: older records for "Baccharis glutinosa" may refer to Mule Fat (*Baccharis salicifolia*); possibilities for confusion are rife. The flowers and habitats similar enough that many of the same insects are likely on both of them.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: Fog-belt Bumblebee (*Bombus caliginosus*). Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina*

nanula). Ochraceous Chimney Bee (*Diadasia ochracea*). American Cellophane-cuckoo Bee (*Epeolus americanus*) (M & N). *Hesperonomada melanantha* (M & N). *Melissodes tessellatus*. Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: *Dieunomia nevadensis*. *Halictus ligatus*. *Halictus tripartitus*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). *Lasioglossum tegulariforme* (M & N). *Sphecodes* #51 (M & N). *Sphecodes* sp. #60 (M & N). *Sphecodes* sp. #61 (M & N). Megachilidae: *Megachile inimica*. Parallel Leafcutter Bee (*Megachile parallela*).

Moldenke got 20 bee species on its flowers, and scores of other insects! Highest total of all.

Baccharis pilularis. **Coyotebrush**. September-January.

Bees: Andrenidae: *Andrena grindeliae*. Apidae: Honeybee (*Apis mellifera*). Urbane Digger (*Anthophora urbana*). Black-notched Bumblebee (*Bombus bifarius*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*). Western Bumblebee (*Bombus occidentalis*) (M & N) – Laine notes them on male ssp. *consanguinea*. Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). *Melissodes lustrus*. Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus oregonensis*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Yerba Santa Masked Bee (*Hylaeus calvus*). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Lasioglossum tegulariforme* (M & N).

In a Pinnacles National Monument survey, native bee visits were rated as uncommon.

Flies: Marc Kummel has photographed an excellent diversity of flies on its flowers. Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Correa) (fq). European Drone Fly (*Eristalis arbustorum*) (Correa) (fq). Drone Fly (*Eristalis tenax*) (Correa) (fq) – strongly preferred in Santa Cruz County. Interrupted Hornet Fly (*Spilomyia interrupta*) (Correa). Mexican Cactus Fly (*Copestylus mexicanum*) (Correa), noted on male flowers. *Eupeodes fumipennis* (Correa). Bird Hover Fly (*Eupeodes volucris*) (Correa). Pied Hover Fly (*Scaeva pyrastris*) (Correa). Tufted Globetail (*Sphaerophoria contigua*) (Correa) (fq). *Sphaerophoria sulphuripes* (Correa) (fq). Thick-legged Hoverfly (*Syrirta pipiens*) (Correa). *Syrphus opinator* (Correa) (fq). *Syrphus ribesii* (Correa) (fq). Calligrapher Fly (*Toxomerus marginatus*) (Correa) (fq). *Toxomerus occidentalis* (Correa) (fq).

Baccharis salicifolia. *Baccharis viminea*. *Baccharis glutinosa* [misapplies]. **Mule-fat**. All year.

Andrenidae: Mock-orange Miner Bee (*Andrena candida*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena ferrugineipes*. Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Subtle Miner Bee (*Andrena subtilis*) (M & N). Apidae: Black-tailed Bumblebee (*Bombus melnopygus*). Colletidae: Spine-shouldered Cellophane Bee (*Colletes simulans*). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*) (M

& N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Agapostemon femoratus*. Lasioglossum incompletum (M & N). *Lasioglossum pullilabre* (M & N). *Lasioglossum trizonatum* (M & N).

In a Pinnacles National Monument survey, native bee visits were rated usually as uncommon.

Flies: Syrphidae: Mexican Cactus Fly (*Copestylum mexicanum*) (Johnathan Coffin).

Balsamorhiza sp.

Bees: Apidae: Red-belted Bumblebee (*Bombus rufocinctus*) (M & N). Edwards's Long-horned Bee (*Eucera edwardsii*). Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*). *Osmia marginipennis*. *Osmia paradisica*.

Balsamorhiza deltoidea. **Deltoid Balsamroot**. April-July.

Balsamorhiza macrolepis. **California Balsamroot**. March-June.

Barbarea sp.

Bees: Andrenidae: Hippotes's Miner Bee (*Andrena hippotes*). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Megachilidae: *Osmia marginipennis*. *Osmia trevoris*.

Barbarea orthoceras. **American Yellowrocket**. February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena cleodora*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Piper's Miner Bee (*Andrena piperi*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Prickly *Ceratina* (*Ceratina acantha*) (fq). *Ceratina tejonensis* (M & N). Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Lasioglossum cordleyi* (M & N). Megachilidae: Dense-haired Mason Bee (*Osmia densa*).

Moldenke got 6 species of bees on the flowers; Apidae: Prickly *Ceratina acantha*) he found extremely abundant. Popular with butterflies.

Berberis sp. **Barberries**. Many were assigned to *Mahonia*.

Bees: Andrenidae: *Andrena forbesii*. *Andrena nivalis*. Orange-banded *Andrena* (*Andrena prunorum*). Willow Mining Bee (*Andrena salicifloris*) (M & N). *Andrena vierecki*. *Andrena w-scripta*. Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

UC Bee Lab garden study finds especially Digger Bees and Mason Bees (Osmia).

Berberis aquifolium. Mahonia aquifolium. **Oregon Grape**. February-April.

Andrenidae: Blue-and-Black Andrena (*Andrena nigrocaerulea*). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*).

Berberis aquifolium var. dictyota. Berberis californica. Berberis dictyota. Mahonia dictyota. **Shining Netvein Barberry**. February-April.

Bees: Andrenidae: Cherry Plum Miner (*Andrena cerasifolii*). Miserable Andrena (*Andrena miserabilis*) (M & N) (fq). Apidae: Fuzzy-horned Bumblebee (*Bombus mixtus*). California Mountain Digger (*Habropoda depressa*) (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Berberis aquifolium var. repens. Berberis amplexans. Berberis repens. Berberis pumila. Mahonia repens. **Dwarf Mahonia**. March-May.

Megachilidae: Blue Orchard Bee (*Osmia lignaria*). *Osmia marginipennis*.

Berberis nervosa. Mahonia nervosa. **Cascades Oregon Grape**. April-May.

Berberis pinnata. Mahonia pinnata. **Coast Barberry**. February-May.

Bees: Andrenidae: *Andrena chlorura* (M & N).

Berula erecta. **Cutleaf Waterparsnip**. July-August.

Bees: Halictidae: *Lasioglossum tegulariforme* (M & N). Alkali Bee (*Nomia melanderi*) (M & N0).

Bidens sp.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N).

Bidens cernua. **Nodding Beggartick**. August-September.

Bees: Apidae: Honeybee (*Apis mellifera*). Halictidae: *Halictus ligatus*. Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*).

Flies: Syrphidae: Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Bidens frondosa. **Sticktight**. August-September.

Bidens laevis. **Burmarigold**. August-September.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (Laine). Sunflower Bee (*Diadasia enavata*). Agile Long-horned Bee (*Melissodes agilis*). Halictidae: *Agapostemon femoratus*. *Halictus ligatus* (M & N). Megachilidae: Common Little Leafcutter Bee (*Megachile brevis*). Western Leafcutter (*Megachile perihirta*).

Not well studied in our area (where it is rare) but known to get plenty of insects; even this bee list likely a sampling.

Bigelovia. See *Forestiera*.

Bistorta bistortoides. *Polygonum bistortoides*. **American Bistort**. May-August.

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*) (M & N). Subtle Miner Bee (*Andrena subtilis*). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Megachilidae: Dense-haired Mason Bee (*Osmia densa*).

Blennosperma bakeri. **Sonoma Sunshine**. March-May.

Bees: Andrenidae: *Andrena chalybaea* (M & N). Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N). *Andrena orthocarpi*. *Andrena subhirta*.

Blennosperma nanum. **Yellow Carpet**. February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena buccata* (M & N). *Andrena chalyboides* (M & N). *Andrena duboisi*. *Andrena lativentris*. *Andrena leucomystax*. *Andrena orthocarpi*. *Andrena pulverea*.

Bloomeria sp.

Bees: Megachilidae: Dense-haired Mason Bee (*Osmia densa*).

Bloomeria crocea. **Golden Stars**. April-June.

Bees: Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

For bee visitation observations, this species was the 22nd most popular in 2011, but not in the top 25 most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years.

Boechera arcuata. *Arabis sparsiflora* var. *arcuata*. **Arching Rockcress**. March-June.

Boechera breweri. Arabis breweri. **Brewer's Rock Cress**. February-May.

Boechera sparsiflora. Arabis sparsiflora. **Sicklepod Rockcress**. April-June.

Boraginaceae. This family dominated in the top 25 bee-attracting species in Pinnacles National Monument one year and tied with Asteraceae and Fabaceae as the most bee-attractive family in another year.

Bees: Andrenidae: Andrena chapmanae (M & N) (fq) "Evidently prefers Boraginaceae ..."

Brasenia schreberi. **Watershield**. June-September.

Bees: Apidae: Honeybee (Apis mellifera) (cp).

Brickellia sp.

Andrenidae: Perdita claypolei (M & N).

Brickellia californica. **California Brickelbush**. August-November.

Brodiaea sp. **Brodiaeas**. Many have been re-assigned to Dichelostemma and Tritoleia and now Dipterostemon..

Bees: Apidae: Edward's Digger (Anthophora edwardsii). Fog-belt Bumblebee (Bombus caliginosus) (M & N). Yellow-faced Bumblebee (Bombus vosnesenskii) (M & N). Prickly Ceratina (Ceratina acantha) (M & N). Eucera actiosa (M & N). Cordley's Long-horned Bee (Eucera cordleyi) (M & N). Delphinium Long-horned Bee (Eucera delphinii) (M & N). Monk Longhorn (Eucera frater albopilosa) (M & N). Eucera hurdi (M & N). Megachilidae: Osmia cara. Trachusa perdita.

Brodiaea appendiculata. **Hoover's Brodiaea**. April-May.

Brodiaea californica. **California Brodiaea**. May-July.

Brodiaea coronaria. **Early Harvest Brodiaea**. May-June.

Bees: Apidae: Ceratina tejonensis (M & N).

Brodiaea elegans. **Harvest Brodiaea**. May-August.

Bees: Apidae: California Bumblebee (Bombus californicus) (M & N). Fog-belt Bumblebee (Bombus caliginosus). Diadasia angusticeps (M & N). Striped Long-horned Bee (Eucera virgata) (M & N).

Fog-belt Bumblebee and 3 other bee species very abundant in Moldenke's study.

Brodiaea leptandra. **Narrow-flowered California Brodiaea**. May-July.

Brodiaea stellaris. **Starflower Brodiaea**. May-June.

Brodiaea terrestris. **Dwarf Brodiaea**. April-July.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year and rare in three years.

Calandrinia sp. **Redmaids**. (Likely *ciliata*).

Bees: Andrenidae: *Andrena misella*.

Calandrinia breweri. **Brewer's Redmaids**. March-June.

Calandrinia ciliata. *Calandrinia menziesii*. **Red Maids**. February-May.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*). Greenish Burrowing Bee (*Andrena cuneilabris*). *Andrena dissimulans*. *Andrena macrocephala* (M & N). *Andrena misella* (M & N) (fq). *Andrena palpalis* (M & N). *Andrena penemisella*. Piper's Miner Bee (*Andrena piperi*) (M & N). *Andrena puthua* (M & N). *Andrena suavis* (M & N). Halictidae: *Agapostemon femoratus*. Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea sandhouseae* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N).

Calandrinia maritima. **Seaside Calandrinia**. March-June.

California macrophylla. *Erodium macrophyllum*. **Round-leaved Filaree**. March-May.

Calochortus sp. **Mariposa**.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*). Orange-banded *Andrena* (*Andrena prunorum*). *Perdita californica*. *Perdita distropica* (M & N) (fq). Apidae: *Anthophorula nitens* (M & N). California Bumblebee (*Bombus californicus*). Black-tailed Bumblebee (*Bombus melanopygus*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). *Ceratina punctigena* (M & N). *Diadasia angusticeps*. Common Chimney Bee (*Diadasia bituberculata*). *Eucera actiosa* (M & N). Colletidae: *Hylaeus conspicuus* (M & N). Halictidae: *Agapostemon femoratus* (M & N). *Halictus tripartitus*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Anthidium colletum*. California Mason Bee (*Osmia californica*). *Trachusa perdita*. Mellitidae: *Clarkia* Evening Bee (*Hesperapis regularis*) (M & N).

For some of records below: Dilley, J., Wilson, P., & Mesler, M. (2000). The Radiation of *Calochortus*: Generalist Flowers Moving through a Mosaic of Potential Pollinators. *Oikos*, 89(2), 209-222. Retrieved June 4, 2020, from www.jstor.org/stable/3547315

Calochortus albus. **White Fairy Lantern**. April-May.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Halictidae: *Dufourea dentipes* (M & N) (fq).

Calochortus amabilis. **Golden Globelily**. April-June.

Calochortus argillosus. **Clay Mariposa**. May-June.

Calochortus invenustus. **Plain Mariposa**. May-August.

Beetles include Ornate Checkered Beetle (*Trichodes ornatus*).

Calochortus luteus. **Yellow Mariposa**. May-June.

Bees: Andrenidae: *Perdita californica* (M & N) (fq). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly Ceratina (*Ceratina acantha*). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Ceratina tejonensis* (M & N). *Eucera actiosa* (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). *Hylaeus conspicuus* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus*. *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum pullilabre* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Sphecodes sp. #55 (M & N). Megachilidae: Western Forest Mason Bee (*Osmia nemoris*).

Several beetles, as with other mariposa lilies.

Calochortus pulchellus. **Mount Diablo Fairy Lantern**. April-June.

Calochortus raichei. **The Cedars Fairy Lantern**. May-August.

Calochortus splendens. **Splendid Mariposa Lily**. April-June.

Bees: Andrenidae: *Perdita californica* – (M & N) (fq). *Perdita distropica* (M & N) (fq). Apidae: *Anthophorula nitens* (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Common Chimney Bee (*Diadasia bituberculata*). *Diadasia laticauda*. *Diadasia rinconis*. Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus ligatus* (M & N). *Lasioglossum incompletum* (M & N). Megachilidae: Texas Osmia (*Osmia texana*).

Calochortus superbus. **Yellow Mariposa**. May-July.

Flies: Syrphidae: *Toxomerus marginatus*.

Calochortus tiburonensis. **Tiburon Mariposa Lily**. March-June.

Calochortus tolmiei. Hairy Star-tulip. April-July.

Bees: Andrenidae: Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). Halictidae: *Dufourea dentipes*. Dense-haired Mason Bee (*Osmia densa*). *Osmia exigua*.

Calochortus umbellatus. **Oakland Star Tulip**. March-May.

Calochortus uniflorus. **Large-flowered Star Tulip**. April-June.

Various beetles, especially.

Calochortus venustus. **Butterfly Mariposa**. May-June.

Bees: Andrenidae: *Andrena omninigra* (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Perdita californica* – (M & N) (fq). *Perdita distropica* (M & N) (fq). Apidae: Arizona Ceratina (*Ceratina arizonensis*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Diadasia angusticeps*. Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea trochantera* (M & N). *Halictus tripartitus*. *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum* (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in five years.

Beetles include Ornate Checkered Beetle (*Trichodes ornatus*).

Calochortus vestae. **Coast Range Mariposa Lily**. May-July.

Calycadenia fremontii. **Fremont's Calycadenia**. May-July.

Calycadenia micrantha. **Small-flowered Calycadenia**. June-September.

Calycadenia multiglandulosa. **Rosin Weed**. May-August.

Bees: Andrenidae: *Andrena orthocarpi* (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Anthophorula nitens* (M & N). American Cellophane-cuckoo Bee (*Epeolus americanus*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N) (fq). *Nomada* sp. (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). Titus' *Lasioglossum incompletum* (M & N). *Lasioglossum* (*Lasioglossum titusi*) (M & N) (fq). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

Calycadenia oppositifolia. **Butte County Calycadenia**. April-July.

Calycadenia pauciflora. **Smallflower Western Rosinweed**. August-October.

Calycadenia truncata. **Rosin Weed**. May-October.

Calypso bulbosa var. *occidentalis*. **Fairy Slipper**. May-June.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*). Fog-belt Bumblebee (*Bombus caliginosus*) and queens. Edward's Bumblebee (*Bombus edwardsii*) and queens. Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Ackerman, J. (1981). Pollination Biology of *Calypso bulbosa* var *occidentalis* (Orchidaceae): a food-deception system. *Madroño*, 28(3), 101-110. Retrieved May 9, 2020, from www.jstor.org/stable/41424311

Calyptridium monandrum. *Cistanthe monandra*. **Pussy Paws**. January-July.

Calyptridium monospermum. *Cistanthe monosperma*. *Spraeguea pulcherrima*. **Oneseed Pussypaws**. May-August.

Bees: Andrenidae: *Andrena angustitarsata*. *Andrena cleodora*. *Andrena knuthiana*. Blue-and-Black *Andrena nigrocaerulea*. Orange-banded *Andrena prunorum*. *Andrena transnigra*. *Andrena w-scripta*. Apidae: Honeybee (*Apis mellifera*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Ceratina tejonensis*. California Cuckoo Bee (*Xeromelecta californica*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Megachilidae: *Osmia montana*.

Calyptridium parryi. *Cistanthe parryi*. **Parry's Pussypaws**. May-August.

Calyptridium quadripetalum. *Cistanthe quadripetala*. **Four Petaled Pussypaws**. April-June.

Calyptridium umbellatum. *Cistanthe umbellata*. *Spraeguea umbellata*. **Pussy Toes**. May-September.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*) (M & N) (fq). Blue-and-Black *Andrena nigrocaerulea* – (M & N) (fq). Orange-banded *Andrena prunorum* (M & N). Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Small Long-horned Bee (*Melissodes microstictus*). Black-banded Cuckoo Bee (*Triepeolus melanarius*). Colletidae: Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Megachilidae: *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Dioxys pomonae*. *Osmia potentillae*. *Protosmia rubifloris*.

Calystegia sp. Convolvulus sp. **Wild Morning Glory**. Formerly Convolvulus; entries there likely here.

Bees: Andrenidae: *Andrena chalyboides* (M & N). Apidae: Common Chimney Bee (*Diadasia bituberculata*) (M & N) – “oligolege of Convolvulus”. *Diadasia consociata* (M & N). *Eucera stretchii*. Megachilidae: *Protosmia rubifloris*. Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*).

Calystegia atriplicifolia. **Nightblooming False Bindweed**. May-July.

Calystegia collina. *Convolvulus malacophyllus*. **Hillside Morning Glory**. April-July.

Bees: Halictidae: *Agapostemon femoratus*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year, rare in another.

Calystegia macrostegia. **Island Morning Glory**. February-July.

Bees: Halictidae: *Lasioglossum tegulariforme* (M & N).

Calystegia malacophylla. *Convolvulus chartaceus*. *Convolvulus malacophyllus*. **Woolly Morning Glory**. July-August.

Bees: Apidae: Common Chimney Bee (*Diadasia bituberculata*) (M & N) (fq). Megachilidae: *Protosmia rubifloris*.

Calystegia occidentalis. Includes *Convolvulus fulcratus*. *Convolvulus occidentalis*. **Western Morning Glory**. May-July.

Bees: Andrenidae: *Andrena atypica*. Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Ceratina punctigena* (M & N). *Ceratina tejonensis*. Sunflower Bee (*Diadasia bituberculata*) – (fq) (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Squash Bee (*Peponapis pruinosa*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Dufourea sandhouseae* (M & N). *Halictus ligatus* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum pavonotum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: Common Little Leafcutter Bee (*Megachile brevis*). Mellitidae: *Clarkia Evening Bee* (*Hesperapis regularis*) (M & N).

A study showed much activity by Sunflower Bee between 6:40 a.m. and 8:40 a.m. The Squash Bee is also known to be active very early – seems early morning is likely a good nectar flow time. (Schlising, 1972).

Calystegia purpurata. **Pacific False Bindweed**. April-September.

Bees: Andrenidae: *Andrena* sp. Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Sunflower Bee (*Diadasia bituberuculata*). Halictidae: Peridot Bee (*Augochlorella pomoniella*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Calystegia purpurata ssp. *purpurata*. **Pacific False Bindweed**. April-September. The more widely distributed ssp. in our area and throughout the state (likely for many records above).

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Calystegia purpurata ssp. *saxicola*. **Bodega Morning Glory**. May-September.

Calystegia sepium ssp. *limnophila*. *Convolvulus limnophilus*. **Hedge False Bindweed**. Marsh Morning Glory. June-October.

Bees: Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*).

Calystegia subacaulis. *Convolvulus subacaulis*. **Hill Morning Glory**. **Stemless Morning Glory**. April-June.

Bees: Apidae: Common Chimney Bee (*Diadasia bituberculata*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year, rare in another.

Camassia sp.

Bees: Apidae: Bear-like Digger Bee (*Anthophora ursina*).

Camassia quamash. **Small Camas**. April-May.

Bees: Apidae: Honeybee (*Apis mellifera*). Megachilidae: Large Indigo Mason Bee (*Osmia atrocyanea*).

Camissonia sp. "Oenothera" . Many now so designated were formerly *Oenothera*.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). Calliopsis *fracta*. Megachilidae: *Protosmia rubifloris*. Halictidae: *Agapostemon femoratus* (M & N). Mellitidae: *Hesperapis fuchsi* often collected on this genus, especially in sandy habitats (BugGuide).

Camissonia campestris. *Oenothera campestris*. *Oenothera dentata* var. *campestris*. **Mojave Suncup**. **Field Sun Cup**. March-May.

Bees: Andrenidae: *Andrena olivacea* (M & N). *Andrena subchalybea* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N) (fq). *Lasioglossum incompletum* (M & N). Megachilidae: *Osmia bakeri*.

Camissonia contorta. *Oenothera contorta*. *Oenothera strigulosa*. *Oenothera cruciata*. **Contorted Suncup**. March-June.

Bees: Halictidae: *Lasioglossum kincaidii* (M & N). Megachilidae: Short Mason Bee (*Osmia brevis*).

Camissonia lacustris. *Oenothera cruciata*. *Oenothera dentata*. **Grassland Suncup**. April-June.

Camissonia strigulosa. *Oenothera dentata*. *Oenothera strigulosa*. *Oenothera contorta* var. *epilobioides*. **Sandysoil Suncup**. March-May.

Bees: Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum nigrescens* (M & N).

Camasoniopsis sp.

Bees: Mellitidae: *Hesperapis fuchsi* often collected on plants of this genus, especially in sandy habitats (BugGuide).

Camasoniopsis bistorta. *Oenothera bistorta*. *Oenothera bistorta* var. *veitchiana*. **California Sun Cup**. March-June. Added late.

Bees: Halictidae: *Dufourea sandhouseae* (M & N). *Lasioglossum nevadense* (M & N). Mellitidae: *Hesperapis fuchsi* – male specimen photographed resting on one of these flowers (BugGuide).

Camissoniopsis cheiranthifolia. *Camissonia cheiranthifolia*. *Oenothera cheiranthifolia*. **Beach Suncup**. January-August.

Bees: Andrenidae: *Andrena oenotherae* – (M & N) (fq). Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Halictidae: *Dufourea sandhouseae* (M & N). *Lasioglossum kincaidii* (M & N).

Camissoniopsis cheiranthifolia ssp. *suffruticosa*. **Shrubby Beach Primrose**. January-August.

Bees: Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N).

Camissoniopsis hirtella. *Camissonia hirtella*. *Oenothera hirtella*. *Oenothera micrantha* var. *jonesii*. **Hairy Sun Cup**. April-June.

Camissoniopsis ignota. *Camissonia ignota*. *Oenothera ignota*. *Oenothera micrantha* var. *ignota*. **Jurupa Hills Sun Cup**. March-August.

Camissoniopsis intermedia. Camissonia intermedia. **Intermediate Sun Cups**. April-May.

Camissoniopsis micrantha. Camissonia micrantha. Oenothera micrantha. **Spencer Primrose**. March-June.

Campanula sp. **Harebell**.

Bees: Apidae: Red-belted Bumblebee (*Bombus rufocinctus*).

Campanula californica. **Swamp Harebell**. June-October.

Campanula sharsmithiae. **Sharsmith's Harebell**. April-June.

Cardamine angulata. **Seaside Bittercress**. April-June.

Cardamine californica. Dentaria californica. **Milk Maids**. January-May.

Bees: Andrenidae: *Andrena chlorura* (M & N). *Andrena nigrihirta*. *Andrena subdepressa*. Apidae: Prickly Ceratina (*Ceratina acantha*).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon.

Moldenke found Greater Bee-fly very abundant.

Cardamine oligosperma. **Idaho Bittercress**. February-March.

Cardamine pachystigma. Dentaria pachystigma. Dentaria corymbosa. **Serpentine Bittercress**. February-May.

Castanopsis sp. **Chinquapin**. Now *Chrysolepis*.

Bees: Apidae: Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: *Halictus tripartitus* (M & N).

Castilleja sp. Classically the mostly red "paintbrushes", now includes former "Orthocarpus".

Apidae: California Bumblebee (*Bombus californicus*). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Halictidae: *Lasioglossum ovaliceps* (M & N). Megachilidae: *Ashmeadiella cactorum*. *Megachile frigida*. Short Mason Bee (*Osmia brevis*). *Osmia cyanopoda*. *Osmia gabrielis*.

Castilleja affinis. **Indian Paintbrush**. June.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). Halictidae: *Lasioglossum*

ovaliceps (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Moldenke found Yellow-faced Bumblebee very abundant; got two elater beetles.

Castilleja ambigua. Orthocarpus castillejoides. **Johnny Nip**. March-August.

Castilleja applegatei ssp. pinetorum. Castilleja pinetorum. **Wavy Leaved Paintbrush**. May-June.

Bees: Halictidae: Lasioglossum ovaliceps (M & N).

Castilleja attenuata. Orthocarpus attenuatus. **Valley Tassels**. March-May.

Bees: Apidae: Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Castilleja campestris. Orthocarpus campestris. **Vernal Pool Indian Paintbrush**. April-May.

Castilleja densiflora. Orthocarpus densiflorus. **Denseflower Owl's Clover**. March-May.

Bees: Andrenidae: *Andrena macrocephala* (M & N). *Andrena orthocarpi* (M & N) (fq). *Andrena pensilis* (M & N) (fq). *Andrena suavis*. Apidae: California Bumblebee (*Bombus californicus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Castilleja exserta. Orthocarpus exsertus. Orthocarpus purpurascens. **Purple Owl's Clover**. March-June.

Bees: Apidae: Crotch's Digger (*Anthophora crotchii*) – (M & N) (fq). California Bumblebee (*Bombus californicus*). *Eucera actiosa* (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: *Osmia gabrielis*. Blue Orchard Bee (*Osmia lignaria*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in three years.

Castilleja foliolosa. **Woolly Indian Paintbrush**. February-June.

Castillea lacera. Orthocarpus lacerus. **Foothill Owl's Clover**. May-July.

Castilleja latifolia. **Seaside Paintbrush**. February-September.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). California Digger (*Anthophora californica*) (M & N).

Castilleja leschkeana. **Point Reyes Paintbrush**.

Castilleja littoralis. **Oregon Coast Paintbrush**.

Castilleja miniata. **Great Red Paintbrush**. June-August.

Bees: Apidae: Great Northern Bumblebee (*Bombus fervidus*).

Castilleja minor. *Castilleja stenantha*. *Castilleja spiralis*. **Little Paintbrush**. July-September.

Castilleja rubicundula. *Orthocarpus rubicundulus*. *Orthocarpus lithospermoides*. **Pink Creamsacs**.

Bees: Andrenidae: *Andrena orthocarpi* (M & N). *Andrena pensilis* (M & N). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: *Osmia granulosa*.

Castilleja subinclusa. *Castilleja franciscana*. **Longleaf Indian Paintbrush**. March-September.

Castilleja uliginosa. **Pitkin Marsh Indian Paintbrush**. June-July.

Castilleja wightii. **Wight's Paintbrush**. March-August.

Ceanothus spp. **Wild Lilac**.

Bees: Andrenidae: *Andrena angustella* (M & N) (fq) "Apparently oligolectic on *Ceanothus*, with a population on *Eschscholzia*." Striped Mining Bee (*Andrena angustitarsata*) – (M & N) (fq) – "Apparently polylectic, emphasis on *Ceanothus* ...". *Andrena atypica* (M & N) (fq) – "Apparently polylectic with emphasis on *Ceanothus*." Golden-Haired Miner Bee (*Andrena auricoma*). Caerulean Miner Bee (*Andrena caerulea*). Mock-orange Miner Bee (*Andrena candida*). *Andrena candidiformis* – (M & N) (fq) "Somewhat polylectic for nectar, but seemingly more or less specific to *Ceanothus* for pollen." *Andrena ceanothifloris* (M & N) (fq) "Oligolectic on *Ceanothus*." *Andrena ceanothifloris* *cretata*. *Andrena chalyboides* (M & N). *Andrena cleodora* (M & N) (fq) "Oligolectic of *Ceanothus*." Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq) "Polylectic with emphasis on *Ceanothus* ...". *Andrena chlorura*. Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena cristata*. Copper-tinted Miner Bee (*Andrena cupreotincta*) (M & N). Dark-tailed *Andrena* (*Andrena fuscicauda*) – (M & N) (fq) "Perhaps an oligolectic of *Ceanothus*, visiting many other species for nectar." *Andrena hypoleuca*. *Andrena knuthiana*. *Andrena latifrons*. Alice's *Andrena* (*Andrena mackieae*) fq. Rose Miner Bee (*Andrena melanochroa*). Small Green Miner Bee (*Andrena microchlora*). Miserable *Andrena* (*Andrena miserabilis*) (M & N). *Andrena nemophilae* (N & M). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena nivalis*. *Andrena orthocarpi*. *Andrena prolixa*. Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Shifty Miner Bee (*Andrena saccata*). Willow Mining Bee (*Andrena salicifloris*) (M & N) (fq). Lonely Miner (*Andrena sola*). *Andrena suavis*. *Andrena transnigra* (fq). *Andrena vandykei*. *Andrena w-scripta*. *Calliopsis obscurella* (M & N). *Panurginus atriceps* (M & N). *Panurginus gracilis* (M & N) (fq). Apidae: Black-notched

Bumblebee (*Bombus bifarius*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*). Edward's Bumblebee (*Bombus edwardsii*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sitka Bumblebee (*Bombus sitkensis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Dwarf Ceratina (*Ceratina nanula*). *Ceratina punctigena*. Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). California Mountain Digger (*Habropoda depressa*) (M & N). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). *Hylaeus nunenmacheri*. Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: *Halictus tripartitus*. *Lasioglossum allonotus* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*). *Lasioglossum nigrescens* (M & N). *Lasioglossum olympiae* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Chelostoma californicum*. *Coelioxys sayi*. *Osmia albolateralis*. Short Mason Bee (*Osmia brevis*). California Mason Bee (*Osmia californica*). *Osmia malina*. *Osmia tristella*.

Flies: Syrphidae: *Syrphus opinator* (Correa). *Syrphus ribesii* (Correa). Calligrapher Fly (*Toxomerus marginatus*) (Correa). *Toxomerus occidentalis* (Correa).

Ceanothus confusus. **Rincon Ridge Ceanothus**. February-June.

Ceanothus cordulatus. **Snow Bush**. May-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Mock-orange Miner Bee (*Andrena candida*) – (M & N) (fq). *Andrena candidiformis*. *Andrena ceanothifloris* (M & N) (fq). *Andrena ceanothifloris cretata*. *Andrena chlorura*. *Andrena cleodora*. *Andrena edwardsi*. Dark-tailed *Andrena* (*Andrena fuscicauda*). Alice's *Andrena* (*Andrena mackieae*). *Andrena w-scripta* (M & N). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). *Hylaeus nunenmacheri* (M & N). Vertical Masked Bee (*Hylaeus verticalis*). Megachilidae: Dense-haired Mason Bee (*Osmia densa*). *Osmia malina*.

Ceanothus crassifolius. **Hoaryleaf Ceanothus**. March-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica*. Mock-orange Miner Bee (*Andrena candida*) – (M & N) (fq). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorura*. *Andrena obscuripostica*. Lonely Miner (*Andrena sola*) (M & N). *Panurginus gracilis*. Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*). *Ceratina tejonensis* (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*).

Ceanothus cuneatus. **Buckbrush** February-April.

Bees; Andrenidae: *Andrena angustella* (M & N) (fq). Striped Mining Bee (*Andrena angustitarsata*) – (M & N) (fq). *Andrena atypica* (M & N). Caerulean Miner Bee (*Andrena caerulea*). Mock-orange Miner Bee (*Andrena candida*) (fq). *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq). *Andrena chlorura*. Alice's *Andrena* (*Andrena mackieae*). Small Green Miner Bee (*Andrena microchlora*) (M & N). *Andrena orthocarpi* (M & N). *Andrena vandykei* (M & N). *Andrena w-scripta*. Apidae: California Bumblebee (*Bombus californicus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumble Bee (*Bombus vosnesenskii*). *Nomada* sp. (M & N). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). *Hylaeus nunenmacheri* (M & N). Halictidae: *Lasioglossum cordleyi* (M & N). *Lasioglossum incompletum* (M & N).

For bee visitation observations, this species was the 21st most popular in 2011 and 15th most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year, uncommon in two years, and rare in one year.

Ceanothus dentatus. **Sandscrub Ceanothus**. February-March.

Bees: Andrenidae: *Panurginus atriceps* – (M & N) (fq). Megachilidae: *Protosmia rubifloris*.

Ceanothus divergens. **Calistoga Ceanothus**. February-April.

Ceanothus ferrisiae. **Coyote Ceanothus**. January-May.

Ceanothus foliosus. **Wavyleaf Ceanothus**. March-June.

Bees: Andrenidae: *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena vandykei*. Apidae: California Bumblebee (*Bombus californicus*) Fog-belt Bumblebee (*Bombus caliginosus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Colletidae: *Hylaeus nunenmacheri*.

Ceanothus gloriosus. **Glory Mat**. March-April.

Ceanothus incanus. **Coast Whitethorn**. May-June.

Ceanothus integerrimus. **Deerbrush**. May-June.

Bees: Andrenidae: *Andrena angustella* (M & N) Striped Mining Bee (*Andrena angustitarsata*) – (M & N) (fq). Mock-orange Miner Bee (*Andrena candida*) -- (M & N) (fq). *Andrena candidiformis* – (M & N) (fq). *Andrena ceanothifloris* (M & N). *Andrena ceanothifloris cretata*. Cherry Plum Miner (*Andrena cerasifolii*). *Andrena chlorura*. *Andrena cleodora* – (M & N) (fq). Copper-tinted Miner Bee (*Andrena cupreotincta*). *Andrena edwardsi*. Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N) (fq). Alice's *Andrena* (*Andrena mackieae*). Blue-and-Black

Andrena (*Andrena nigrocaerulea*). *Andrena orthocarpi*. Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Calliopsis fracta* (M & N). *Panurginus atriceps* (M & N) (fq). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced. Bumblebee (*Bombus vosnesenskii*). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Yerba Santa Masked Bee (*Hylaeus calvus*). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: *Lasioglossum allonotus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*). *Osmia malina*. *Osmia montana*. *Protosmia rubifloris*.

Ceanothus jepsonii. **Musk Brush**. March-April.

Bees: Andrenidae: *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*).

Ceanothus leucodermis **Chaparral Whitethorn**. March-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N) (fq). *Andrena ceanothifloris* (M & N) (fq). *Andrena chlorura* (M & N). Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). *Andrena w-scripta* (M & N) (fq). Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Protosmia rubifloris*.

Ceanothus masonii. **Bolinas Ceanothus**. March-April.

Ceanothus oliganthus. *Ceanothus soledadensis*. **Hairy Ceanothus**. March-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica* (M & N). *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq). *Andrena chlorura* (M & N) (fq). Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). *Andrena orthocarpi* (M & N) (fq). *Andrena semipunctata* (M & N). *Andrena w-scripta* (M & N). *Panurginus melanocephalus* (M & N). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). California Mountain Digger (*Habropoda depressa*) (M & N) (fq). *Nomada* sp. (M & N). Colletidae: *Hylaeus conspicuus* (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). *Hylaeus nunenmacheri*. Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Megachilidae: *Hoplitis fulgida*.

Ceanothus palmeri. **Palmer Ceanothus**. April-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N) (fq). Mock-orange Miner Bee (*Andrena candida*). *Andrena chlorura*. Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N) (fq). *Andrena scurra* (M & N) (fq). *Andrena w-scripta* (M & N) (fq). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Halictidae: Tansy Mustard Sweat Bee (*Lasioglossum*

sisymbrii) (M & N).

Ceanothus papillosus. **Wartleaf Ceanothus**. April-May.

Ceanothus parryi. **Parry Ceanothus**. April-May.

Bees: Andrenidae: *Andrena candidiformis*. Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Ceanothus parvifolius. **Littleleaf Ceanothus**. June-July.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Halictidae: Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N).

Ceanothus prostratus. **Mahala Mat**. April-June.

Ceanothus purpureus. **Hollyleaf Ceanothus**. March-May.

Ceanothus rigidus. **Monterey Ceanothus**. March-April.

Ceanothus sonomensis. **Sonoma Ceanothus**. February-April.

Bees: Andrenidae: Green-bellied Miner Bee (*Andrena chlorogaster*).

Ceanothus thrysiflorus. **Blueblossom**. March-May.

Bees: Apidae: California Mountain Digger (*Habropoda depressa*).

UC Bee Lab garden study finds especially bumblebees, Halictididae, Digger Bees, and one of the many varieties of small bees.

Ceanothus velutinus. **Snowbrush**. March-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena candidiformis*. *Andrena chlorura*. *Andrena melanothroa*. *Andrena w-scripta*. *Panurginus nigrellus*. Apidae: Honeybee (*Apis mellifera*) Black-notched Bumblebee (*Bombus bifarius*). Black-tailed Bumblebee (*Bombus melanopygus*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Megachilidae: *Osmia bruneri*.

Centaurium davyi. Assigned to *Zeltnera davyi*.

Centaurium muhlenbergii. Assigned to *Zeltnera muhlenbergii*.

Centaurium tricanthum. Assigned to *Zeltnera tricantha*.

Centaurium venustum. Assigned to *Zeltnera venusta*.

Centromadia fitchii. Hemizonia fitchii. **Spikeweed**. March-October.

Bees: Apidae: Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: *Halictus ligatus* (M & N).

Centromadia parryi. Hemizonia parryi. **Pappose Tarweed**. May-November.

Centromadia pungens. Hemizonia pungens. **Common Spkeweed**. April-September.

Bees: Andrenidae: *Andrena duboisi*. *Calliopsis hesperia* (M & N). Apidae: Short Sun-Digger (*Anthophora curta*) – (M & N) (fq). *Anthophora rhodothorax*. Urbane Digger (*Anthophora urbana*) (M & N). Honeybee (*Apis mellifera*). Crotch's Bumblebee (*Bombus crotchii*). Sunflower Bee (*Diadasia enavata*). Agile Long-horned Bee (*Melissodes agilis*). *Melissodes appressus*. *Melissodes bimatrix*. *Melissodes hurdi* – (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes lutulentus* – (M & N) (fq). *Melissodes moorei* (M & N). Pale-marked Long-horn Bee (*Melissodes pallidisignata*) – (M & N) (fq). Robust Long-horned Bee (*Melissodes robustior*) – (M & N) (fq). *Melissodes sternsi*. *Melissodes tepida timberlakei* – (M & N) (fq). Sunflower Bee (*Svastra obliqua expurgata*). Concave Longhorn-Cuckoo (*Triepeolus concavus*) (M & N). Sunflower Cuckoo Nomad Bee (*Triepeolus helianthi*) (M & N). Yellow-breasted Cuckoo Nomad Bee (*Triepeolus paenepectoralis*) (M & N). *Triepeolus utahensis*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacosmia maculata* (M & N). Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus*). *Hylaeus conspicuus*. *Mesilla* Masked Bee (*Hylaeus mesillae*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus ligatus* (fq). *Lasioglossum incompletum*. *Lasioglossum kincaidii*. *Lasioglossum orthocarpi* (M & N). *Lasioglossum tegulariforme* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Megachilidae: *Anthidium edwardsii*. *Ashmeadiella californica*. *Dianthidium* sp. Apical Leafcutter Bee (*Megachile apicalis*). Alfalfa Leafcutter Bee (*Megachile rotundata*).

Cephalanthus occidentalis. **Common Buttonbush**. August-October.

Bees: Apidae: Honeybee (*Apis mellifera*) (sn) (fq). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*). Flat-tailed Leafcutter Bee (*Megachile mendica*). Parallel Leaf-cutting Bee (*Megachile parallela*).

Flies: Mexican Cactus Fly (*Copestylum mexicanum*) (Makings). Drone Fly (*Eristalis tenax*) (Hilty). Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty).

Cerastium sp. Many are non-native.

Bees: Halictidae: *Halictus tripartitus* (M & N).

Cerastium arvense. **Meadow Chickweed**. April-June.

Bees: Halictidae: *Lasioglossum ruidosense*.

Cerastium viride. **Field Chickweed**.

Cercis occidentalis. **Redbud**. February-April.

Bees: Apidae: Crotch's Bumblebee (*Bombus crotchii*) – queens noted (Flora, Fall 2020). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). California Carpenter Bee (*Xylocopa californica*) (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

UC Bee Lab garden study notes especially carpenter bees and mason bees (*Osmia*).

Cercocarpus sp. **Mountain Mahogany**.

Bees: Andrenidae: Miserable *Andrena* (*Andrena miserabilis*) (M & N) (fq). Orange-banded *Andrena* (*Andrena prunorum*).

Cercocarpus betuloides. **Mountain Mahogany**. March-May.

Bees: Andrenidae: *Andrena angustella*. Mock-orange Miner Bee (*Andrena candida*). *Andrena cercocarpi*. *Andrena chlorura*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena orthocarpi*. Apidae: *Anthophora neglecta*. California Bumblebee (*Bombus californicus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). California Mountain Digger (*Habropoda depressa*). Halictidae: *Lasioglossum cooleyi* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in three years.

Chaenactis sp. **Pincushion**.

Bees: Andrenidae: *Calliopsis fracta* (M & N) Apidae: *Anthophora exigua*. *Anthophora petrophila*. Crotch's Bumblebee (*Bombus crotchii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Ceratina punctigena* (M & N). *Zacosmia maculata*. Halictidae: *Dufourea sandhouseae* (M & N). Megachilidae: *Anthidium atrifrons*. Short Mason Bee (*Osmia brevis*). *Osmia trevoris*.

Chaenactis glabriscula. **Yellow Pincushion**. January-August.

Bees: Andrenidae: Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena puthua* (M & N). Lonely Miner (*Andrena sola*). *Calliopsis obscurella*. Apidae: Short Sun-Digger (*Anthophora curta*) – (M & N) (fq). *Anthophora petrophila* (M & N) (fq). Crotch's Bumblebee (*Bombus crotchii*). Black-tailed Bumblebee (*Bombus melanopygus*). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*). Robust Long-horned Bee (*Melissodes robustior*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacosmia maculata* (M &

N). Colletidae: Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). (fq) Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N) (fq). *Halictus ligatus* (M & N). *Lasioglossum incompletum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N) (fq). Megachilidae: *Anthidium banningense*. *Anthidium collectum*. Utah Wool-carder Bee (*Anthidium utahense*). Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Ashmeadiella cubiceps*. *Megachile subnigra*. California Mason Bee (*Osmia californica*). Colorado Osmia (*Osmia coloradensis*). *Osmia marginipennis*. Texas Osmia (*Osmia texana*). Mellitidae: *Clarkia Evening Bee* (*Hesperapis regularis*) (M & N).

In 2011 it was 5th most popular with bees in a Pinnacles National Monument collecting survey, and in 2012 it was the 7th most popular species.

Chamerion angustifolium. *Chamaenerion angustifolium*. *Epilobium angustifolium*. **Fireweed**. July-September.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*) n. Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Red-belted Bumblebee (*Bombus rufocinctus*). Sitka Bumblebee (*Bombus sitkensis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*) (M & N). Megachilidae: *Anthidium atrifrons*. *Heriades cressoni*. *Hoplitis fulgida*. *Megachile angularum*. *Megachile melanophaea*. *Megachile montivaga*. Golden-tailed Leafcutter (*Megachile relativa*). Bufflehead Mason Bee (*Osmia bucephala*). Colorado Osmia (*Osmia coloradensis*). Dense-haired Mason Bee (*Osmia densa*).

Chenopodium californicum. **California Goosefoot**. March-June.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Chlorogalum sp.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N).

Chlorogalum angustifolium. **Narrowleaf Soaproot**. May-June.

Chlorogalum pomeridianum. **Soap Root**. May-August.

Bees: Apidae: California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Diadasia angusticeps* (M & N). Halictidae: *Lasioglossum cooleyi* (M & N).

Chloropyron maritimum. *Cordylanthus maritimus*. **Salt Marsh Bird's Beak**. May-December.

Bees: Megachilidae: *Anthidium edwardsii*.

Chloropyron molle. *Cordylanthus mollis*. **Soft Bird's Beak**. June-September.

Bees: Megachilidae: *Anthidium edwardsii*.

Chorizanthe species, little data for local but **Turkish Rugging**, *C. staticoides* gets:

Bees: Andrenidae: 1 *Perdita*. Apidae: *Melissodes velutinus* (M & N) Megachilidae: *Anthidium edwardsii*. *Anthidium utahense*. *Ashmeadiella californica*. *Ashmeadiella timberlakei*. Mellitidae: *Hesperaspis rufipes*.

Chorizanthe cuspidata. *Chorizanthe pungens* var. *cuspidata*. **San Francisco Spineflower**. April-July.

Bees: Apidae: Dwarf *Ceratina* (*Ceratina nanula*) (M & N).

Chorizanthe diffusa. *Chorizanthe andersonii*. *Chorizanthe pungens* var. *diffusa*. **Diffuse Spineflower**. April-July.

Chorizanthe douglasii. *Chorizanthe nortonii*. **Douglas's Spineflower**. **San Benito Spineflower**. April-July.

Bees: Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year, uncommon in three years, and rare in one year.

Chorizanthe membranacea. *Eriogonella membranacea*. **Pink Spineflower**. April-June.

Chorizanthe polygonoides var. *polygonoides*. **Knotweed Spineflower**. April-July.

Chorizanthe pungens. **Monterey Spineflower**. April-July.

Flies: Syrphidae: *Eupeodes fumipennis* (Correa) (fq). Bird Hover Fly (*Eupeodes volucris*) (Correa).

Chorizanthe pungens var. *hartwegiana*. *Chorizanthe pungens* var. *hartwegii*. **Ben Lomond Spineflower**. April-July.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Chorizanthe pungens var. *pungens*. *Chorizanthe douglasii* var. *albens*. **Monterey Spineflower**. April-June.

Chorizanthe robusta var. *hartwegii*. *Chorizanthe douglasii* var. *hartweii*. *Chorizanthe pungens* var. *hartwegii*. **Scott's Valley Spineflower**. April-July.

Chorizanthe robusta var. *robusta*. *Chorizanthe pungens* var. *robusta*. **Robust Spineflower**. April-September.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Chorizanthe stellulata. **Starlet Spineflower**. April-July.

Chorizanthe uniaristata. **Oneawn Spineflower**. April-July.

Chrysolepis sp. *Castanopsis* sp. **Chinquapin**.

Chrysolepis chrysophylla. **Giant Chinquapin**.

Hemiptera: 14 Miridae.

Chrysolepis sempervirens. *Castanopsis sempervirens*. **Bush Chinquapin**.

Bees: Halictidae: *Lasioglossum incompletum* (M & N). *Lasioglossum tegulariforme* (M & N).

Chrysopsis sp. **Goldenaster**. Ours are now assigned to *Heterotheca*.

Bees: Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Chrysothamnus sp. Many formerly so designated are now assigned to *Ericameria*. Note: in many cases I ignored such records, started inclusion late in the compilation.

Bees: Andrenidae: *Andrena citrinihirta* (M & N) (fq). *Andrena isocomae* (M & N) (fq). *Perdita ciliata* (M & N). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N) (fq). *Anthophora petrophila* (M & N). Urbane Digger (*Anthophora urbana*) (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). Great Northern Bumblebee (*Bombus fervidus*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). Compact Cellophane-cuckoo Bee (*Epeolus compactus*) (M & N). Agile Long-horned Bee (*Melissodes agilis*) (M & N) (fq). *Melissodes grindeliae* (M & N) – thought to be an oligolege on this or related species. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N) (fq). *Melissodes*

lustrus (M & N) (fq). *Melissodes lutulentus* (M & N) (fq). Small Long-horned Bee (*Melissodes microstictus*) (M & N) (fq). Pale-marked Long-horned Bee (*Melissodes pallidesignata*) (M & N) (fq). *Melissodes paululus* (M & N). Robust Long-horned Bee (*Melissodes robustior*) (M & N). *Melissodes tepida timberlakei* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N) (fq). Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus ligatus* (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum olympiae* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). *Lasioglossum trizonatum* (M & N). Cuckoo Sweat Bee (*Sphecodes arvensiformis*) (M & N).

Cicuta douglasii. Western Water Hemlock. May-June.

Bees: Colletidae: Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N).

Cicuta maculata. **Water Hemlock**. July-September.

Bees: Apidae: Honeybee (*Apis mellifera*). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hyleus modestus*). Halictidae: *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*) sn cp fq. Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*).

Flies: Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Hilty). Drone Fly (*Eristalis tenax*) (Hilty). Tufted Globetail (*Sphaerophoria contigua*) (Hilty). Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty) (fq). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Gets wasps and flies, too, especially.

Circaea alpina. **Small Enchanter's Nightshade**. May-June.

Circaea alpina ssp. *pactifica*. *Circaea pacifica*. **Pacific Enchanter's Nightshade**. May-June. This is our local taxon.

Cirsium sp. **Thistle**. Some non-native, likely flower visitors about the same.

Bees: Andrenidae: Piper's Miner Bee (*Andrena piperi*). Orange-banded Andrena (*Andrena prunorum*). Apidae: Short Sun-Digger (*Anthophora curta*). *Anthophora flavocincta*. Urbane Digger (*Anthophora urbana*). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Fernald's Cuckoo Bumblebee (*Bombus flavidus*). Yellow-fronted Bumblebee (*Bombus*

flavifrons). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Red-belted Bumblebee (*Bombus rufocinctus*). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Ceratina micheneri (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). Ceratina punctigena (M & N). Ceratina tejonensis (M & N). Diadasia rinconis. Eucera actiosa (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edwards's Long-horned Bee (*Eucera edwardsii*). Eucera stretchii. Striped Long-horned Bee (*Eucera virgata*) (M & N). Silver Digger (*Habropoda miserabilis*). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Pale-marked Long-horned Bee (*Melissodes pallidisignata*) (M & N). *Melissodes rivalis* – (M & N) (fq). *Melissodes sternsi* (M & N). *Melissodes velutinus*. Squash Bee (*Peponapis pruinosa*). Sunflower Bee (*Svastra obliqua expurgata*) (M & N) (fq). California Cuckoo Bee (*Xeromelecta californica*). Colletidae: Slender-faced Masked Bee (*Hylaeus leptocephalus*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: Agapostemon femoratus (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*). Bicolored Striped Sweat Bee (*Agapostemon virescens*). Peridot Bee (*Augochlorella pomoniella*) (M & N). Halictus ligatus. Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). Halictus tripartitus (M & N). Lasioglossum orthocarpi (M & N). Megachilidae: Anthidium maculosum. European Wool Carder Bee (*Anthidium manicatum*). Anthidium mormonum. Dianthidium ulkei. Megachile angelarum. Horn-faced Leafcutter Bee (*Megachile fidelis*). Flat-tailed Leafcutter Bee (*Megachile mendica*). Megachile montivaga. Western Leafcutter (*Megachile perihirta*). Megachile pugnata. Golden-tailed Leafcutter (*Megachile relativa*). Large Indigo Mason Bee (*Osmia atrocyanea*). Short Mason Bee (*Osmia brevis*). Bufflehead Mason Bee (*Osmia bucephala*). California Mason Bee (*Osmia californica*). Colorado Osmia (*Osmia coloradensis*). Osmia gabrielis. Osmia inurbana. Blue Orchard Bee (*Osmia lignaria*). Osmia montana. Western Forest Mason Bee (*Osmia nemoris*). Osmia penstemonis. Osmia tersula. Texas Osmia (*Osmia texana*). Trachusa timberlakei.

Generally a big favorite with bumblebees. The taller, showier ones especially also attract large butterflies. And many other insects besides bees.

Cirsium andrewsii. **Franciscan Thistle**. March-July.

Bumblebees.

Cirsium brevistylum. **Indian Thistle**. April-July.

Cirsium cymosum. **Peregrine Thistle**. June-July.

Bees: Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Great Northern Bumblebee (*Bombus fervidus*). Western Bumblebee (*Bombus occidentalis*). Red-belted Bumblebee (*Bombus rufocinctus*).

Cirsium douglasii. **Swamp Thistle**. June-August.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Melissodes rivalis*. Colletidae: Nevada Yellow-faced Bee (*Hylaeus nevadensis*). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*). Megachilidae: *Megachile montivaga*. *Megachile pugnata*. Texas *Osmia* (*Osmia texana*).

Cirsium hydrophilum. **Suisun Thistle**. June-September.

Cirsium occidentale. **Cobweb Thistle**. May-July.

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Melissodes rivalis*. Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Megachile montivaga*. Western Leafcutter (*Megachile perihirta*). California Mason Bee (*Osmia californica*). Western Forest Mason Bee (*Osmia nemoris*). Texas *Osmia* (*Osmia texana*).

In early Pinnacles National Monument surveys, native bee visits were rated as usually rare, uncommon one year.

Cirsium occidentale var. *californicum*. *Cirsium californicum*. **California Thistle**. May-July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N) (fq). Edward's Bumblebee (*Bombus edwardsii*) (M & N). *Ceratina punctigena* (M & N). *Diadasia angusticeps*. Common Chimney Bee (*Diadasia bituberculata*). *Diadasia rinconis*. *Eucera angustifrons* (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). *Eucera stretchii* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Ashmeadiella cactorum*. *Heriades occidentalis*. Elderberry Summer Mason Bee (*Holitis sambuci*). *Megachile lippiae*. *Megachile montivaga*. *Megachile subnigra*. California Mason Bee (*Osmia californica*). *Osmia cara*. *Osmia juxta*. *Osmia malina*. *Osmia montana*. Western Forest Mason Bee (*Osmia nemoris*). *Osmia nifoata*. Texas *Osmia* (*Osmia texana*).

Cirsium occidentale var. *occidentale*. *Cirsium coulteri*. **Cobweb Thistle**. May-July.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Cirsium quercetorum. **Brownie Thistle**. May-July.

Bees: Black-tailed Bumblebee (*Bombus melanopygus*) (Brooks, 2020).

Lepidoptera: California Ringlet.

Cirsium remotifolium. **Fewleaf Thistle**. June-July.

Cirium remotifolium var. *odontolepis*. **Pacific Fringed Thistle**. June-July.

Clarkia sp.

Bees: Andrenidae: *Andrena omninigra* -- (M & N) (fq). Pale-faced Miner Bee (*Andrena pallidifovea*). Apidae: Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). *Clarkia* Ceratina (*Ceratina sequoiae*) – (M & N) “Oligolege of *Clarkia* species.” *Ceratina tejonensis*. *Diadasia angusticeps* (M & N) – “oligolege of *Clarkia*”. *Diadasia nigrifrons* (M & N). *Melissodes clarkiae* (M & N) – “Oligolectic on *Clarkia*.” California Cuckoo Bee (*Xeromelecta californica*). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Yerba Santa Masked Bee (*Hylaeus calvus*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus*. *Lasioglossum cooleyi* (M & N) (fq). *Lasioglossum orthocarpi* (M & N). *Lasioglossum pullilabre* (M & N) (fq). *Lasioglossum titusi*. Megachilidae: *Anthidium mormonum*. White-faced Summer Mason Bee (*Hoplitis albifrons*). Common Little Leafcutter Bee (*Megachile brevis*). *Megachile pascoensis*. *Osmia bakeri*. Short Mason Bee (*Osmia brevis*). California Mason Bee (*Osmia californica*). *Osmia cara*. Western Forest Mason Bee (*Osmia nemoris*). *Clarkia* Evening Bee (*Hesperapis regularis*) [M & N – fq].

Clarkia affinis. **Chaparral Clarkia**. April-July.

Bees: Megachilidae: Colorado *Osmia* (*Osmia coloradensis*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Clarkia amoena. **Godetia**. June-August.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Ceratina micheneri* (M & N). *Diadasia angusticeps* (M & N). *Melissodes tepida timberlakei*. Colletidae: *Colletes* sp. (Brooks, 2020). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Megachilidae: *Anthidium banningense*. Utah Wool-carder Bee (*Anthidium utahense*). *Megachile montivaga*. *Megachile pascoensis*. Melittidae: *Hesperapis pellucida*. *Clarkia* Evening Bee (*Hesperapis regularis*) (M & N) (fq).

Clarkia amoena ssp. *huntiana*. **Farewell to Spring**. June-August.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Halictidae: *Lasioglossum incompletum*.

Clarkia biloba. **Twolobe Clarkia**. May-July.

Bees: Andrenidae: *Andrena omninigra* (M & N) (fq). Orange-banded *Andrena* (*Andrena prunorum*) (M & N) (fq). Apidae: Urbane Digger (*Anthophora urbana*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). *Clarkia Ceratina* (*Ceratina sequoiae*) (M & N). *Eucera actiosa* (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum*. Megachilidae: Common Little Leafcutter Bee (*Megachile brevis*). *Megachile gentilis*. *Megachile montivaga*. Western Forest Mason Bee (*Osmia nemoris*). Melittidae: *Clarkia Evening Bee* (*Hesperapis regularis*).

Clarkia breweri. **Brewer's Clarkia**. April-June.

Bees: Megachilidae: *Osmia cara*. Dense-haired Mason Bee (*Osmia densa*).

Clarkia concinna. **Red Ribbons**. April-July.

Bees: Apidae: California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee. Black-tailed Bumblebee (*Bombus melanopygus*).

Clarkia epiloboides. **Canyon Clarkia**. April-May.

Clarkia franciscana. **Presidio Clarkia**. May-July.

Clarkia gracilis. *Godetia cylindrica*. **Slender Clarkia**.

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Halictidae: *Lasioglossum nigrescens* (M & N). Megachilidae: White-faced Summer Mason Bee (*Hoplitis albifrons*). Western Forest Mason Bee (*Osmia nemoris*).

Clarkia gracilis ssp. *albicaulis*. **Whitestem Clarkia**. May-July.

Bees: Apidae: *Clarkia Ceratina* (*Ceratina sequoiae*) (M & N).

Clarkia gracilis ssp. *sonomensis*. **Sonoma Clarkia**. May-July.

Bees: Apidae: Honeybee (*Apis mellifera*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Ceratina sequoiae*. Diadasia *angusticeps*. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). *Lasioglossum pullilabre*. Megachilidae:

Jones, K. (1996). Pollinator Behavior and Postpollination Reproductive Success in Alternative

Floral Phenotypes of *Clarkia gracilis* (Onagraceae). *International Journal of Plant Sciences*, 157(6), 733-738. Retrieved June 4, 2020, from www.jstor.org/stable/2474886

Clarkia modesta. Waltham Creek *Clarkia*. April-May.

Mellitidae: *Clarkia* Evening Bee (*Hesperapis regularis*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in four years.

Clarkia purpurea. **Winecup *Clarkia***. April-July.

Bees: Apidae: *Clarkia* Ceratina (*Ceratina sequoiae*) (M & N). *Diadasia angusticeps* – (fq) (M & N). Common Chimney Bee (*Diadasia bituberculata*). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Megachile montivaga*. *Megachile perhirta*. Western Forest Mason Bee (*Osmia nemoris*). Melittidae: *Clarkia* Evening Bee (*Hesperapis regularis*) (M & N – fq).

The fourth most bee-popular species in Pinnacles National Monument in 2011, and 11th most bee-popular species in 2012 collecting.

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year, uncommon in four years, rare in one year.

Clarkia purpurea ssp *viminea*. *Godetia viminea*. **Winecup *Clarkia***.

Bees: Apidae: *Clarkia* Ceratina (*Ceratina sequoiae*) (M & N). *Diadasia angusticeps* (M & N) (fq). Halictidae: *Agapostemon femoratus*. *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). Mellitidae: *Clarkia* Evening Bee (*Hesperapis regularis*) (M & N) (fq).

Clarkia rhomboidea. **Tongue *Clarkia***. April-July.

Bees: Andrenidae: *Andrena omninigra* (M & N) (fq). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Clarkia* Ceratina (*Ceratina sequoiae*) (M & N). *Ceratina tejonensis* (M & N). Halictidae: *Dufourea dentipes* (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Osmia albolateralis*. Large Indigo Mason Bee (*Osmia atrocyanea*).

Clarkia rubicunda. **Ruby Chalice *Clarkia***. May-August.

Apidae: California Bumblebee (*Bombus californicus*). Yellow-faced Bumble Bee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Diadasia angusticeps* (M & N) (fq). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N). Halictidae: Peridot Bee

(Augochlorella pomoniella) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum* (M & N). Melittidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N – fq).

Clarkia tembloriensis. **Temblor Range Clarkia**. April.

Clarkia unguiculata. *Clarkia elegans*. **Elegant Clarkia**. June-September.

Bees: Apidae: California Digger (*Anthophora californica*). Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*), California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Clarkia Ceratina (*Ceratina sequoiae*). Dimorphic Mountain Digger (*Habropoda tritissima*). *Melissodes clarkiae*. California Carpenter Bee (*Xylocopa californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Halictidae: *Halictus tripartitus*. *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum*. *Lasioglossum pullilabre*. *Lasioglossum mellipes*. *Lasioglossum pullilabre* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Dianthidium dubium*. White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis fulgida*. *Hoplitis producta*. Elderberry Summer Mason Bee (*Hoplitis sambuci*). Apical Leafcutter Bee (*Megachile apicalis*). Common Little Leafcutter Bee (*Megachile brevis*). *Megachile pascoensis*. Dense-haired Mason Bee (*Osmia densa*). *Osmia granulosa*. Western Forest Mason Bee (*Osmia nemoris*). *Osmia texana*, Melittidae: *Hesperapis ilicifoliae*. Clarkia Evening Bee (*Hesperapis regularis*) (M & N – fq).

In one year of collecting in Pinnacles National Monument this was the most bee-popular species.

In early Pinnacles National Monument surveys, native bee visits were rated as common in four years, uncommon in one year.

Some of these from Appendix S4 from: Ha, M.K. and Ivey, C.T. (2017), Pollinator mediated interactions in experimental arrays vary with neighbor identity. *American Journal of Botany*, 104: 252-260. doi:10.3732/ajb.1600293

UC Bee Lab garden study finds especially important to plant in patches of 1 - 2 meters or more for best attraction. Bumblebees, Mason Bees (*Osmia*) and honeybees were noted especially.

Claytonia sp. Many formerly were assigned to *Montia*.

Bees: Andrenidae: Green-bellied Miner Bee (*Andrena chlorogaster*). Yellow-legged Miner Bee (*Andrena cressonii*). Small Green Miner Bee (*Andrena microchlora*). Willow Mining Bee (*Andrena salicifloris*). *Panurginus atriceps*. Megachilidae: Blue Orchard Bee (*Osmia lignaria*). *Osmia tristella*.

Claytonia gypsophilioides. **Gypsum Springbeauty**. February-April.

Bees: Andrenidae: *Andrena anisochlora*.

Cockerell, T.D.A. 1936. "Bees from Northern California." *The Pan-Pacific Entomologist* 1:137-138.

Claytonia perfoliata. *Claytonia spatulata*. *Montia perfoliata*. **Indian Lettuce**. February-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena anisochlora* (M & N). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena candidiformis*. *Andrena chalyboides* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena misella* (M & N). *Andrena nigrihirta*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) (M & N). *Andrena penemisella*. Piper's Miner Bee (*Andrena piperi*). *Andrena pulverea*. *Andrena suavis*. *Andrena w-scripta* (M & N). *Panurginus atriceps* (M & N). Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Nomada* spp. (M & N). Megachilidae: *Osmia albolateralis*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years, rare in two years.

Greater Bee-fly very abundant (Moldenke).

Claytonia sibirica. *Montia sibirica*. **Candy Flower**. April-May.

Bees: Andrenidae: Blue-and-Black *Andrena* (*Andrena nigrocaerulea*).

Clematis sp. **Virgin's Bower**.

Apidae: *Anthophora petrophila*. Western Bumblebee (*Bombus occidentalis*) (M & N). Agile Long-horned Bee (*Melissodes agilis*). Colletidae: Spine-shouldered Cellophane Bee (*Colletes simulans*). Buckwheat Masked Bee (*Hylaeus polifolii*). Halicidae: *Dieunomia nevadensis*.

Clematis lasiantha. **Chaparral Clematis**. March-July.

Bees: Andrenidae: *Andrena angustella* (M & N). Lonely Miner (*Andrena sola*) (M & N).

Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in three years.

Moldenke notes Greater Bee-fly.

Clematis ligusticifolia. **Western Virgin's Bower**. June-August.

Bees: Andrenidae: *Perdita californica*. Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Western Bumblebee (*Bombus occidentalis*). Colletidae: Colorado Yellow-faced

Bee (*Hylaeus coloradensis*). Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Megachilidae: Alfalfa Leaf-cutter (*Megachile rotundata*). *Megachile texana*.

Clinopodium douglasii. *Satureja douglasii*. *Micromeria chamissonis*. *Satureja chamissonis*. **Yerba Buena**. May-July.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N).

Collinsia sp.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Eucera actiosa* (M & N) (fq). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Colletidae: Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum cooleyi* (M & N). Megachilidae: *Anthidium maculosum*. *Dioxys pacifica*. *Dioxys pomonae*. *Osmia bakeri*. Short Mason Bee (*Osmia brevis*). Yellowish Green Mason Bee (*Osmia calla*). Dense-haired Mason Bee (*Osmia densa*). *Osmia glauca*. *Osmia granulosa*. Happy Mason Bee (*Osmia laeta*).

Collinsia bartsiiifolia. **White Collinsia**. March-June.

Bees: Megachilidae: *Osmia latisulcata*. *Osmia morongana*.

Collinsia grandiflora. **Giant Blue Eyed Mary**. April-July.

Bees: Andrenidae: *Andrena transnigra*. Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera actiosa*. Brother Long-horned Bee (*Eucera frater*).

Collinsia heterophylla. *Collinsia bicolor*. **Chinese Houses**. February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). Apidae: California Bumblebee (*Bombus californicus*). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Eucera frater*, a common long-horned bee. Dimorphic Mountain Digger (*Habropoda tritissima*) – (M & N) (fq). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum ovaliceps* (M & N). Megachilidae: *Anthidium banningense*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Chelostoma californicum*. *Chelostoma phaceliae*. White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis producta*. *Megachile gentilis*. *Osmia aglaia*.

Large Indigo Mason Bee (*Osmia atrocyanea*). *Osmia bakeri*. Short Mason Bee (*Osmia brevis*). Yellowish Green Mason Bee (*Osmia calla*). *Osmia cara*. Colorado Osmia (*Osmia coloradensis*). Blue Mason Bee (*Osmia cyanella*). *Osmia cyanopoda*. Dense-haired Mason Bee (*Osmia densa*). *Osmia gabrielis*. *Osmia glauca*. *Osmia granulosa*. *Osmia juxta*. Happy Mason Bee (*Osmia laeta*). Blue Orchard Bee (*Osmia lignaria*). *Osmia malina*. *Osmia montana*. *Osmia nanula*. *Osmia tristella*. *Protosmia rubifloris*.

UC Bee Lab garden study finds it one of few that work with some shade; got notably bumblebees.

In early Pinnacles National Monument surveys, native bee visits were rated as common in two years, uncommon in three years, and rare one year.

Collinsia parviflora. **Maiden Blue Eyed Mary**. April-May.

Bees: Apidae: *Eucera actiosa*. Megachilidae: Yellowish Green Mason Bee (*Osmia calla*). *Osmia exigua*. Kincaid's Mason Bee (*Osmia kincaidii*). Small Mason Bee (*Osmia pusilla*). *Osmia penstemonis*. *Osmia sedula*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Collinsia sparsiflora. **Spinster's Blue Eyed Mary**. March-June.

Collinsia tinctoria. **Sticky Chinese Houses**. May-July.

Bees: Apidae: Van Dyke's Bumblebee (*Bombus vandykei*). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Hoplitis coleii*. *Hoplitis producta*. Short Mason Bee (*Osmia brevis*). *Osmia cyanopoda*.

Convolvulus sp. There are non-native species and many native *Calystegia* were formerly so designated (see), thus not definitive but rather a vague designation; flower visitors may be about the same.

Bees: Andrenidae: Miserable Andrena (*Andrena miserabilis*) (M & N). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Common Chimney Bee (*Diadasia bituberculata*) (M & N) "oligolege of *Convolvulus*". *Diadasia consociata* (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N).

Collomia diversifolia. **Serpentine Collomia**. May-June.

Collomia grandiflora. **Grand Collomia**. June-July.

Collomia heterophylla. **Variableleaf Collomia**. April-June.

Cordylanthus sp. Some now *Chloropyron*.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Crotch's Bumblebee (*Bombus crotchii*). Sonoran Bumblebee (*Bombus sonoratus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Megachilidae: Flat-tailed Leafcutter Bee (*Megachile mendica*).

Cordylanthus pilosus. *Adenostegia pilosa*. **Hairy Bird's Beak**. July-August.

Bees: Apidae: Lupine Long-horned Bee (*Melissodes lupinus*). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum ovaliceps* (M & N).

Cordylanthus rigidus. *Adenostegia filifolia*. **Stiffbranch Bird's Beak**. July-August.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Halictidae: *Lasioglossum ovaliceps* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium placitum*. *Megachile angularum*. *Megachile coquilletti*. *Megachile gentilis*.

Cordylanthus tenuis. **Slender Bird's-beak**. July-August.

Bees: Megachilidae: *Anthidium edwardsii*.

Coreopsis sp. Many native species are now *Leptosyne* (see also); there are also non-native *Coreopsis*.

Bees: Andrenidae: *Andrena olivacea* (M & N). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Robust Long-horned Bee (*Melissodes robustior*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacospia maculata* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Alkali Bee (*Nomia melanderi*) (M & N0 (fq).

Corethrogyne sp.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*). Urbane Digger (*Anthophora urbana*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Ceratina micheneri* (M & N). Dwarf Ceratina

(*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes melanurus* (M & N). Small Long-horned Bee (*Melissodes microstictus*) (M & N) (fq). *Melissodes moorei*. Robust Long-horned Bee (*Melissodes robustior*) (M & N). *Melissodes sternsi* (M & N). *Nomada formula* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Halictus ligatus* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). Megachilidae: *Ashmeadiella californica*. *Dianthidium dubium*. *Dianthidium pudicum*. Common Little Leaf-cutter Bee (*Megachile brevis*). Parallel Leaf-cutting Bee (*Megachile parallela*).

Corethrogyne filaginifolia. *Corethrogyne bernadina*. *Corethrogyne bernardinus*. *Corethrogyne californica*. *Corethrogyne virgata*. *Lessingia filiginifolia*. **California Sandaster**. June-October.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). *Anthophora flavocincta*. *Anthophora rhodothorax*. Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly Ceratina (*Ceratina acantha*) (M & N). *Ceratina punctigena* (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes melanurus* (M & N). *Melissodes moorei*. Robust Long-horned Bee (*Melissodes robustior*) (M & N). *Melissodes sternsi* (M & N). Colletidae: Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Dufourea sandhouseae* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium maculosum*. *Dianthidium parvum*. *Megachile angelarum*. *Megachile brevis*.

Corethrogyne filaginifolia var. *californica*. *Corethrogyne californica*.

Cornus sp.

Bees: Andrenidae: Deathcamas Miner Bee (*Andrena astragali*). *Andrena fragilis*. Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*).

Cornus glabrata. **Brown Dogwood**. May-June.

Cornus nuttallii. **Mountain Dogwood**. April-May.

Cornus sericea. *Cornus californica*. *Cornus californicus*. *Cornus stolonifera*. **American Dogwood**. June-August.

Bees: Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena thaspi*. Halictidae: *Lasioglossum pacificum* (M & N).

Flies: Syrphidae: *Dasysyrphus* sp. (Correa). *Syrphus ribesii* (Hilty).

Crataegus sp. **Hawthorn**.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena forbesii* (M & N) (fq). Hippotes's Miner Bee (*Andrena hippotes*). Miserable *Andrena* (*Andrena miserabilis*) (M & N) (fq). Orange-banded *Andrena* (*Andrena prunorum*). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Crataegus douglasii. *Crataegus columbiana*. **Black Hawthorn**. April-May.

Bees: Andrenidae: Caerulean Mining Bee (*Andrena caerulea*) n. Mock-orange Miner Bee (*Andrena candida*) n. *Andrena hemileuca* n. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) n. Orange-banded *Andrena* (*Andrena prunorum*). Apidae: Honeybee (*Apis mellifera*) n. Halictidae: *Lasioglossum cooleyi* n.

Crataegus gaylussacia. *Crataegus suksdorfii*. **Klamath Hawthorn**. May-June.

Crepis sp.

Bees: Andrenidae: *Andrena perimelas* (M & N). Subtle Miner Bee (*Andrena subtilis*) (M & N). Apidae: *Anthophora exigua*.

Crepis monticola. **Mountain Hawksbeard**. May-July.

Crepis occidentalis. **Western Hawksbeard**. **Largeflower Hawksbeard**. May-June.

Bees: Andrenidae: Pale-faced Miner Bee (*Andrena pallidifovea*). Halictidae: *Halictus fainosus*.

Crepis pleurocarpa. **Nakedstem Hawksbeard**. June-August.

Bees: Andrenidae: *Andrena knuthiana*. Apidae: Common Chimney Bee (*Diadasia bituberculata*).

Cressa truxillensis. *Cressa cretica*. *Cressa cretica* var. *truxillensis*. **Alkali Weed**. May-June.

Bees: Apidae: *Anthophora flavocincta* (M & N) (fq). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Arizona *Ceratina* (*Ceratina arizonensis*) (M & N). *Diadasia consociata* (M & N). *Melissodes minisculus*. Halictidae: *Lasioglossum tegulariforme* (M & N). Megachilidae: *Anthidium edwardsii*.

Croton californicus. **California Croton**. April-July.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*). Cherry Plum Miner (*Andrena cerasifolii*). *Andrena oenotherae* (M & N). Apidae: Prickly *Ceratina* (*Ceratina acantha*) (M & N). Arizona *Ceratina* (*Ceratina arizonensis*). *Ceratina punctigena* (M & N). *Melissodes appressus*. Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes lustrus*. *Melissodes paululus*. *Melissodes tepida timberlakei*. *Melissodes tessellatus*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacosmia maculata*. Colletidae: *Colletes tectiventris*. Episcopal Masked

Bee (*Hylaeus episcopalis*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dieunomia nevadensis* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). Utah Wool-carder Bee (*Anthidium utahense*). Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Dianthidium parvum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*. *Megachile frugalis*. *Megachile gentilis*. *Megachile texana*.

Wasps: Crabronidae: Western Sand Wasp (*Bembix americana*).

Croton setiger. *Eremocarpus setigerus*. **Turkey Mullein**. May-October.

Bees: Apidae: Honeybee (*Apis mellifera*). Prickly Ceratina (*Ceratina acantha*). Compact Cellophane-cuckoo Bee (*Epeolus compactus*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes lustrus* (M & N). *Melissodes sternsi*. *Melissodes tepida timberlakei* – (M & N) (fq). *Melissodes velutinus*. *Nomada formula* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus*. *Halictus tripartitus*. *Lasioglossum incompletum*. *Lasioglossum tegulariforme*. Megachilidae: *Ashmeadiella aridula astragali*. Apical Leafcutter Bee (*Megachile apicalis*).

Cryptantha sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena baeriae*. Caerulean Miner Bee (*Andrena caerulea*). Mock-orange Miner Bee (*Andrena candida*). *Andrena candidiformis* (M & N). *Andrena chalybaea* (M & N). *Andrena chapmanae*. *Andrena chlorura*. *Andrena congrua*. *Andrena cryptanthae* (M & N) (fq). Alice's *Andrena* (*Andrena mackieae*). *Andrena oenotherae*. *Andrena omninigra*. *Andrena orthocarpi*. *Andrena osmioides* (M & N) (fq) "Oligolectic on *Cryptantha*." *Andrena penemisella*. Piper's Miner Bee (*Andrena piperi*) (M & N) (fq). Clover *Andrena* (*Andrena plana*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena puthua*. *Andrena santaclarae*. Lonely Miner (*Andrena sola*) (M & N). *Andrena w-scripta* (M & N). Bearded *Nomadopsis* (*Calliopsis barbata*). *Panurginus nigrellus* (M & N). Apidae: *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Compact Cellophane-cuckoo Bee (*Epeolus compactus*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: *Colletes californicus* (M & N). *Colletes phaceliae*. Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Halictidae: *Halictus tripartitus* (M & N) (fq). Megachilidae: *Anthidium banningense*. *Atoposmia copelandica*. *Calliopsis barbata*. *Calliopsis fracta*. *Calliopsis obscurella*. *Perdita californica*. *Perdita quadrisignata*. Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). *Eucera angustifrons* (M & N). *Eucera hurdi* (M & N). *Eucera*

lunata (M & N). *Eucera zonata* (M & N). California Mountain Digger (*Habropoda depressa*). *Nomada obscurella*. *Oreopasites vanduzeei*. Red-bellied Townsendiella (*Townsendiella rufiventris*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: *Hylaeus nunenmacheri* (M & N). Halictidae: *Dufourea mulleri* (M & N). *Dufourea tarsata* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum ovaliceps*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). *Lasoglossum trizonatum*. Sphecodes #53 (M & N). Megachilidae: *Anthidium banningense*. *Anthidium collectum*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella bigeloviae*. *Chelostoma californicum*. *Chelostoma minutum*. *Dianthidium ulkei*. *Hoplitis caudex*. *Hoplitis fulgida*. *Hoplitis jacintana*. *Hoplitis remotula*. *Hoplitis tristis*. *Megachile subnigra*. *Osmia bakeri*. Short Mason Bee (*Osmia brevis*). Yellowish Green Mason Bee (*Osmia calla*). *Osmia glauca*. *Osmia granulosa*. Western Forest Mason Bee (*Osmia nemoris*). *Protosmia rubifloris*. Occidental Cuckoo Carder Bee (*Stelis occidentalis*).

In early Pinnacles National Monument surveys, native bee visits were rated as common to rare.

Cryptantha clevelandii. **Cleveland's Cryptantha**. March-May.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*). Megachilidae: *Hoplitis howardi*. *Osmia glauca*.

Cryptantha flaccida. **Weak-stem Cryptantha**. March-May.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*). *Andrena chapmanae*. *Perdita trisignata*. Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Megachilidae: *Chelostoma californicum*. *Protosmia rubifloris*.

Cryptantha intermedia. **Common Cryptantha**. March-July.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*). Cherry Plum Miner (*Andrena cerasifolii*). *Andrena chapmanae*. *Andrena congrua*. *Andrena cyptanthae* – (M & N) (fq). *Andrena macrocephala* (M & N). *Andrena nigra* (M & N). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena oenotherae* (M & N). *Andrena osmioides* (M & N) (fq). Piper's Miner Bee (*Andrena piperi*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Lonely Miner (*Andrena sola*). *Andrena w-scripta* (M & N). *Calliopsis fracta*. *Calliopsis obscurella*. *Panurginus atriceps* (M & N). *Perdita trisignata*. Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Edward's Digger (*Anthophora edwardsii*). Urbane Digger (*Anthophora urbana*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Ceratina punctigena* (M & N). Common Chimney Bee (*Diadasia bituberculata*) (M & N). American Cellophane-cuckoo Bee (*Epeolus americanus*) (M & N). *Eucera actiosa* (M & N). Cordley's Long-horned

Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Lupine Long-horned Bee (*Melissodes lupinus*). Small Long-horned Bee (*Melissodes microstictus*). *Melissodes tepida timberlakei*. *Melissodes velutinus*. Crotch's Nomad (*Nomada crotchii nigrior*) (M & N). Edward's Nomad Bee (*Nomada edwardsii*). Red-bellied Townsendiella (*Townsendiella rufiventris*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacosmia maculata* (M & N). Colletidae: *Colletes californicus*. Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea mulleri* (M & N). *Dufourea sandhouseae* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). *Lasioglossum tegulariforme* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). *Micralictoides ruficaudus* (M & N). Cuckoo Sweat Bee (*Sphecodes arvensiformis*) (M & N). *Sphecodes* sp. #5 (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium collectum*. *Anthidium edwardsii*. Emarginate Wool-carder Bee (*Anthidium emarginatum*). *Anthidium illustre*. *Anthidium jocosum*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella bigeloviae*. Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Ashmeadiella californica*. *Ashmeadiella foveata*. *Ashmeadiella timberlakei*. *Chelostoma minutum*. *Chelostoma phaceliae*. *Dianthidium pudicum*. *Dioxys pomonae*. *Heriades occidentalis*. White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis caudex*. *Hoplitis fulgida*. *Hoplitis howardi*. *Hoplitis jacintana*. *Hoplitis remotula*. *Hoplitis tristis*. *Megachile angularum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*. *Megachile gentilis*. *Megachile subnigra*. Large Indigo Mason Bee (*Osmia atrocyanea*). *Osmia bakeri*. Short Mason Bee (*Osmia brevis*). *Osmia californica*. *Osmia clarescens*. Colorado Osmia (*Osmia coloradensis*). Blue Mason Bee (*Osmia cyanella*). *Osmia cyanopoda*. Dense-haired Mason Bee (*Osmia densa*). *Osmia exigua*. Happy Mason Bee (*Osmia laeta*). *Osmia latisulcata*. Little Queen Mason Bee (*Osmia regulina*). Blueberry Bee (*Osmia ribifloris*). *Osmia texana*. *Protosmia rubifloris*.

Cryptantha muricata. **Prickly Cryptantha**. April-August.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Halictidae: Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Hoplitis caudex*. *Hoplitis fulgida*. *Hoplitis remotula*. *Hoplitis tristis*. *Megachile angularum*. Horn-faced Leafcutter Bee (*Megachile fidelis*).

Cucurbitaceae. **Gourd Family**.

Bees: Apidae: Squash Bee (*Peponapis pruinosa*) (M & N) – “Oligolege of Cucurbita.”

Cucurbita sp. **Gourd**.

Bees: Apidae: Sonoran Bumblebee (*Bombus sonorus*) (M & N). Agile Long-horned Bee (*Melissodes agilis*) (M &N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Squash Bee (*Peponapis pruinosa*) (M & N) (fq). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Halictidae: *Lasioglossum kincaidii* (M & N).

Cucurbita foetidissima. **Calabazilla**. Missouri Gourd. June-August.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*) (M & N) (fq). *Melissodes tessellatus* Common Squash Bee (*Peponapis pruinosa*) – (M & N) (fq). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*).

Cuscuta sp. **Dodder**.

Halictidae: *Halictus tripartitus* (M & N).

Cuscuta californica. California Dodder. February-August.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Cuscuta salina. **Saltmarsh Dodder**. May-October.

Bees: Apidae: Honeybee (*Apis mellifera*). Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Great Golden Digger Wasp (*Sphex ichneumonius*) nectars on the flowers, also. Also noted such other wasps as Square-headed Wasp (*Larropsis* sp.) and a *Tachytes* sp.

Cymopterus terebinthinus. **Turpentine Cymopterus**. May-June.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*) (M & N).

Cynoglossum grande. **Pacific Hound's Tongue**. February-August.

Bees: Apidae: Pacific Digger (*Anthophora pacifica*) (M & N).

Greater Bee-fly (Moldenke). Favorite of Pacific Orangetip butterfly.

Datura sp. **Datura**.

Bees: Apidae: Sonoran Bumblebee (*Bombus sonorus*) (M & N). Ochraceous Chimney Bee (*Diadasia ochracea*). *Melissodes sternsi* (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N).

Datura wrightii. *Datura meteloides*. **Jimson Weed**. February-October.

Bees: Apidae: Honeybee (*Apis mellifera*). Agile Long-horned Bee (*Melissodes agilis*) (M &N).

Valley Carpenter Bee (*Xylocopa varipuncta*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum ovaliceps* (M & N). *Lasioglossum tegulariforme* (M & N).

Prime hawkmoth bait.

Daucus sp. **Carrot**.

Bees: Andrenidae: *Andrena chalyboides* (M & N). Orange-banded *Andrena* (*Andrena prunorum*). Apidae: Sonoran Bumblebee (*Bombus sonorus*) (M & N). Colletidae: *Colletes phaceliae*.

Daucus pusillus. **Wild Carrot**. April-June.

Deinandra bacigalupii. **Livermore Sunshine**. June-October.

Deinandra corymbosa. *Hemizonia corymbosa*. **Coastal Tarweed**. March-November.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus gaudialis*) (M & N). *Hylaeus maritimus*.

Deinandra fasciculata. *Hemizonia fasciculata*. **Clustered Tarweed**. Extirpated Santa Cruz Co. May-October.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*). *Anthophorula nitens* (M & N) (fq). Prickly Ceratina (*Ceratina acantha*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N) (fq). *Melissodes sternsi* (M & N) (fq). Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N) (fq). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). *Lasioglossum incompletum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Deinandra kelloggii. *Hemizonia wrightii*. **Kellogg's Tarweed**. April-August.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*) (M & N) (fq) Lupine Long-horned Bee (*Melissodes lupinus*). Small Long-horned Bee (*Melissodes microstictus*). Robust Long-horned Bee (*Melissodes robustior*). Black-banded Cuckoo Bee (*Triepeolus melanarius*). *Zacosmia maculata* (M & N). Halictidae: *Agapostemon femoratus* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Deinandra lobbii. *Hemizonia lobbii*. **Threeray Tarweed**. May-September.

Bees: Apidae: Lupine Long-horned Bee (*Melissodes lupinus*) – (M & N) (fq). Megachilidae:

Utah Wool-carder Bee (*Anthidium utahense*).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon.

Delphinium sp.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). Crotch's Digger (*Anthophora crotchii*) (M & N). Urbane Digger (*Anthophora urbana*) (M & N). Bear-like Digger Bee (*Anthophora ursina*). California Bumblebee (*Bombus californicus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Delphinium Long-horned Bee (*Eucera delphinii*) (M & N) (fq) – “Probably polylectic with emphasis on Delphinium.” California Cuckoo Bee (*Xeromelecta californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Halictidae: Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N).

Delphinium californicum. **California Larkspur**. April-June.

California Bumblebee (*Bombus californicus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Anna's Hummingbird. (Moldenke).

Delphinium decorum ssp. *tracyi*. **Coastal Larkspur**. March-July.

Bees: Apidae: Pacific Digger (*Anthophora pacifica*). Yellow-fronted Bumblebee (*Bombus flavifrons*).

Delphinium hansenii. *Delphinium hansenii*. Hansen's Delphinium. **El Dorado Delphinium**. March-May.

Bees: Apidae: Delphinium Long-horned Bee (*Eucera delphinii*) (M & N).

Delphinium hesperium. **Foothill Larkspur**. May-July.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Delphinium hesperium ssp. *pallidum*. **Pale Western Larkspur**. May-July.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Delphinium nudicaule. **Red Larkspur**. March-June.

Delphinium parishii. *Delphinium amabile*. Parish's *Delphinium*. March-June.

Bees: Apidae: *Eucera albescens* (M & N).

Delphinium parryi. **San Bernardino Larkspur**. April-June.

Bees: Apidae: Crotch's Digger (*Anthophora crotchii*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Delphinium variegatum. **Royal Larkspur**. March-April.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N).

Dendromecon rigida. **Tree Poppy**. February-May.

Bees: Andrenidae: *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena hypoleuca*. Black-tipped Miner Bee (*Panurginus atriceps*). Apidae: Dwarf Ceratina (*Ceratina nanula*). *Ceratina punctigena*. Common Chimney Bee (*Diadasia bituberculata*). Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Nevada Sweat Bee (*Lasioglossum nevadense*).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year, rare in three years.

Descurainia pinnata. **Tansy Mustard**. February-June.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*). *Andrena melanochroa*. *Andrena orthocarpi* (fq). Piper's Miner Bee (*Andrena piperi*). Orange-banded *Andrena* (*Andrena prunorum*). *Andrena scurra*. Colletidae: *Colletes phaceliae*. Halictidae: *Halictus ligatus*. *Lasioglossum incompletum*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*).

Dicentra sp. Bleeding Hearts. Some are now assigned to *Ehrendorferia*.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Dicentra formosa. **Pacific Bleeding Heart**. June-July.

Dichelostemma congestum. *Brodiaea congesta*. *Hookera congesta*. **Ookow**. May-June.

Dichelostemma multiflorum. *Brodiaea multiflora*. *Hookera multiflora*. **Wild Hyacinth**. April-June.

Dichelostemma volubile. *Brodiaea volubilis*. *Hookera volubilis*. **Twining Snakelily**. April-July.

Diplacus sp.

Bees: Megachilidae: *Osmia granulosa*.

Diplacus angustatus. *Mimulus angustatus*. **Narrow-leaved Pansy Monkeyflower**. March-June.

Diplacus aurantiacus. *Mimulus aurantiacus*. **Bush Monkeyflower**. March-August.

Bees: Apidae: California Bumblebee (*Bombus californica*). Fog-belt Bumblebee (*Bombus caliginosus*). Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Ceratina tejonensis* (M & N). *Melissodes lupinus*. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). Nevada Sweat Bee (*Lasioglossum nevadense*). Megachilidae: *Ashmeadiella foveata*. *Osmia cobaltina*. Blue Mason Bee (*Osmia cyanella*). *Osmia exigua*. *Osmia gabrielis*. *Osmia granulosa*. *Osmia tristella*.

In early Pinnacles National Monument surveys, native bee visits were rated as common in two years, uncommon in one year, and rare in three years.

An attractive Hemiptera: Pleasant Plant Bug (*Closterocoris amoenus*).

Popular with Anna's Hummingbird.

Diplacus bolanderi. *Mimulus bolanderi*. **Bolander's Monkeyflower**. April-July.

Diplacus congdonii. *Mimulus congdonii*. **Congdon's Monkeyflower**. March-May.

Diplacus douglasii. *Mimulus douglasii*. **Purple Mouse Ears**. February-April.

Diplacus kelloggii. *Mimulus kelloggii*. **Kellogg's Monkeyflower**. February-June.

Diplacus layneae. *Eunanus layneae*. *Mimulus brachiatus*. *Mimulus layneae*. **Layne's Monkeyflower**. May-August.

Diplacus rattanii. *Mimulus decurtatus*. *Mimulus rattanii*. **Rattan's Monkeyflower**. May-July.

Diplacus tricolor. *Mimulus tricolor*. **Tricolor Monkeyflower**. March-June.

Dipterostemon capitatus. *Dichelostemma capitatum*. *Brodiaea capitata*. *Brodiaea pulchella*. *Hookera pulchella*. **Blue Dicks**. February-April.

Bees: Apidae: Crotch's Digger (*Anthophora crotchii*). Edward's Digger (*Anthophora edwardsii*). Common Chimney Bee (*Diadasia bituberculata*). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Striped Long-horned Bee

(*Eucera virgata*) (M & N). Halictidae: *Dufourea mulleri*. *Lasioglossum incompletum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Hoplitis hypocrita*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years, rare in one year.

Flies: Common Oblique Syrphid (*Allograpta obliqua*) (Barnes).

Downingia bella. **Hoover's Calicoflower**. April-June.

Bees: Apidae: California Bumblebee (*Bombus californicus*) fq. Sonoran Bumblebee (*Bombus sonorus*) fq.

Downingia bicornuta. **Doublehorn Calicoflower**. April-May.

Downingia concolor. **Maroonspot Calicoflower**. May-July.

Downingia cuspidata. **Toothed Calicoflower**. April-June.

Visited especially by hoverflies and American Lady and Acmon Blue butterflies.

Martin, B., & Lathrop, E. (1986). Niche partitioning in *Downingia bella* and *D. cuspidata* (Campanulaceae) in the vernal pools of the Santa Rosa Plateau Preserve, California. *Madroño*, 33(4), 284-299. Retrieved May 20, 2020, from www.jstor.org/stable/41413364

Downingia elegans. **Elegant Calicoflower**. June-September.

Bees: Megachilidae: Apidae: Orange-tipped Wood-digger (*Anthophora terminalis*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Diadasia nigrifrons*. Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Hoplitis producta*. *Osmia albolateralis*. Large Indigo Mason Bee (*Osmia atrocyanea*). Blue Mason Bee (*Osmia cyanella*). Dense-haired Mason Bee (*Osmia densa*). Small Mason Bee (*Osmia pusilla*). *Osmia sedula*. *Osmia trevoris*.

Downingia ornatissima. **Folded Calicoflower**. April-May.

Downingia pulchella. **Flatface Calicoflower**. April-May.

Bees: Andrenidae: *Andrena leucomystax* *Andrena pensilis*.

Downingia pusilla. **Dwarf Calicoflower**. March-May.

Drymocallis glandulosa. *Potentilla glandulosa*. **Sticky Cinquefoil**. April-September.

Bees: Andrenidae: *Andrena amphibola*. Striped Mining Bee (*Andrena angustitarsata*). Golden-

Haired Miner Bee (*Andrena auricoma*) – (M & N) (fq) – “Apparently polylectic, usually associated with herbs in shaded situations with emphasis on *Potentilla glandulosa* and *Scrophularia californica*.” *Andrena birtwelli* (M & N) (fq). Copper-tinted Miner Bee (*Andrena cupreotincta*). Western Red-legged Miner Bee (*Andrena medionitens*) (M & N). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena nivalis*. *Andrena thaspi*. *Andrena w-scripta*. *Panurginus atriceps*. Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Nomada* sp. (M & N). Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Halictus virgatellus*. *Lasioglossum nevadense* (M & N). *Lasioglossum trizonatum* (M & N). Megachilidae: *Osmia potentillae*. *Protosmia rubifloris*.

Marc Kummel photographed an unknown small bee on a flower.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Beetles.

Dudleya sp. **Live-forever**.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). California Digger (*Anthophora californica*) – (M & N) (fq). Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Crotch’s Bumblebee (*Bombus crotchii*) (M & N). Edward’s Bumblebee (*Bombus edwardsii*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*). *Eucera angustifrons* (M & N) (fq). Edward’s Long-horned Bee (*Eucera edwardsii*) (M & N) (fq). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Halictidae: Peridot Bee (*Augochlorella pomoniella*). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*).

Hummingbirds and American Sand Wasp (*Bembix americanus*) among other flower visitors.

Some records from: Aigner, P. (2005). Variation in Pollination Performance Gradients in a *Dudleya* Species Complex: Can Generalization Promote Floral Divergence? *Functional Ecology*, 19(4), 681-689. Retrieved June 4, 2020, from www.jstor.org/stable/3599230

Dudleya abramsii. **Abrams’ Liveforever**. April-June.

Dudleya caespitosa. **Sand Lettuce**. May-June.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Dudleya cymosa. **Rock Lettuce**. March-July.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in three years.

Dudleya farinosa. **Bluff Lettuce**. June-August.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Dudleya lanceolata. **Lanceleaf Liveforever**. May-July.

Ehrendorferia chrysantha. *Dicentra chrysantha*. **Golden Eardrops**. May-July.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Megachilidae: *Anthidium illustre*. *Ashmeadiella* sp. *Dianthidium pudicum*. Elderberry Summer Mason Bee (*Hoplitis sambuci*). *Megachile angularum*. *Megachile davidsoni* fq. *Megachile melanophaea*. *Osmia cara*. Dense-haired Mason Bee (*Osmia densa*). *Osmia juxta*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years, rare in two years.

Eleocharis macrostachya. **Common Spikerush**. May-June.

Bees: Apidae: Honeybee (*Apis mellifera*).

Elymus sp. **Wildrye**.

Bees: Apidae: *Anthophora exigua*.

Emmenanthe penduliflora. **Whispering Bells**. February-June.

Bees: Andrenidae: *Andrena atypica* (M & N). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: *Anthidium mormonum*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon one year and rare in another.

Epilobium sp. Some were assigned to *Zauschneria*; fireweed (formerly *E. angustifolium*) was assigned to *Chamaenerion*, now to *Chamerion*.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N) (fq). Black-notched Bumblebee (*Bombus bifarius*) (M & N). Great Northern Bumblebee (*Bombus fervidus*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee

(*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Clarkia Ceratina (*Ceratina sequoiae*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*). Dense-haired Mason Bee (*Osmia densa*). *Osmia juxta*.

Epilobium brachycarpum. *Epilobium paniculatum*. **Parched Fireweed**. June-October.

Epilobium canum. *Zauschneria californica*. **California Fuchsia**. August-October.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Gets hummingbirds, sometimes a long-tongued butterfly, especially Pipevine Swallowtail.

Epilobium ciliatum ssp. *ciliatum*. *Epilobium adenocaulon*. **Northern Willow Herb**. June-September.

Bees: Apidae: Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Megachilidae: Dense-haired Mason Bee (*Osmia densa*). *Osmia penstemonis*.

Epilobium ciliatum ssp. *watsonii*. *Epilobium watsonii*. *Epilobium franciscanum*. **Watson's Willowherb**. March-September.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Epilobium minutum. **Chaparral Willowherb**. April-June.

Bees: Halictidae: *Lasioglossum trizonatum* (M & N).

Eremalche parryi. **Parry's Mallow**. March-May. Ours is subsp. *parryi*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Eremothera boothii. *Camissonia boothii*. *Oenothera boothii*. **Booth's Sun Cup**. May-August. Ours are especially *Eremothera boothii* ssp. *decorticans*. May-June.

Eremothera chamaenenioides. *Camissonia chamaenenioides*. *Oenothera chamaenenioides*. **Long Fruit Suncup**. March-June.

Eriastrum sp.

Bees: Apidae: Short Sun-digger (*Anthophora curta*). Urbane Digger (*Anthophora urbana*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Melissodes velutinus*. Colletidae: Megachilidae: *Anthidium jocosum*.

Eriastrum abramsii. **Abrams' Woollystar**. April - June.

Eriastrum ertterae. **Lime Ridge Eriastrum**.

Eriastrum filifolium. **Lavender Woollystar**. April-July. Known from very close to the Stanislaus-Santa Clara -Alameda County nexus.

Bees: Apidae: *Anthophora flavocincta*.

Eriastrum pluriflorum. *Gilia virgata*. **Tehachapi Woollystar**. May-June.

Bees: Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

Eriastrum tracyi. **Tracy's Eriastrum**. June-July.

Eriastrum virgatum. *Hugelia virgata*. **Wand Woollystar**. May-July. Reported very close to the southern border of the study area.

Bees: Andrenidae: Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Melissodes sternsi* (M & N) (fq). *Melissodes tepida timberlakei* (M & N). *Melissodes velutinus* (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N) (fq). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Anthidium collectum*. *Anthidium jocosum*. Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella bigeloviae*. *Ashmeadiella cactorum*. *Ashmeadiella californica*. *Ashmeadiella sonora*. *Dianthidium pudicum*. *Hoplitis colei*. *Hoplitis grinnelli*. *Megachile brevis*. *Megachile coquilletti*. *Megachile texana*.

Ericameria sp. Formerly assigned to *Chrysothamnus* and *Haplopappus*.

Bees: Apidae: *Anthophora flavocincta*. *Anthophora petrophila*. Great Northern Bumblebee (*Bombus fervidus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Red-belted Bumblebee

(*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Pacific Little Carpenter Bee (*Ceratina pacifica*). Sunflower Bee (*Diadasia enavata*). Small Long-horned Bee (*Melissodes microstictus*). *Zacosmia maculata*. Colletidae: Slevin's Cellophane Bee (*Colletes slevini*). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). *Hylaeus conspicuus*. Buckwheat Masked Bee (*Hylaeus polifolii*). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: *Halictus ligatus* (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Dianthidium dubium*. *Dianthidium parvum*. *Dianthium ulkei*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile nevadensis*. Golden-tailed Leafcutter (*Megachile relativa*). *Osmia bakeri*.

Flies: Syrphidae: Drone Fly (*Eristalis tenax*) (Correa). *Lapposyrphus* spp. (Correa). Tufted Globetail (*Sphaerophoria contigua*) (Correa). *Sphaerophoria sulphuripes* (Correa). *Syrphus opinator* (Correa). *Syrphus ribesii* (Correa). Calligrapher Fly (*Toxomerus marginatus*) (Correa) (fq). *Toxomerus occidentalis* (Correa) (fq).

Ericameria arborescens. *Haplopappus arborescens*. **Golden Fleece**. August-September.

Bees: Andrenidae: *Perdita repens*. Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Sunflower Bee (*Diadasia enavata*) (M & N) (fq). *Melissodes bimatrix* (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes lustrus* (M & N) (fq). *Melissodes paululus* (M & N) (fq). California Longhorn-Cuckoo (*Triepeolus californicus*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus ligatus* (M & N). *Lasioglossum incompletum* (M & N). Megachilidae: Big-cheeked Mason Bee (*Ashmeadiella buconis*).

Ericameria ericoides. *Haplopappus ericoides*. **California Goldenbush**. September-November.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Colletidae: Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N).

Ericameria fasciculata. *Haplopappus eastwoodiae*. **Eastwood's Goldenbush**. July-October.

Ericameria linearifolia. *Haplopappus linearifolius*. *Stentopsis linearifolia*. **Interior Goldenbush**. February-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena orthocarpi*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena subchalybea* (M & N). Apidae: *Anthophora exigua*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Pacific

Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Ceratina punctigena* (M & N). Compact Cellophane-cuckoo Bee (*Epeolus compactus*) (M & N). *Eucera actiosa* (M & N). *Melissodes melanurus* (M & N). Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea sandhouseae* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum trizonatum* (M & N) (fq). Megachilidae: *Anthidium maculosum*. *Anthidium mormonum*. *Ashmeadiella californica*. *Ashmeadiella cubiceps*. *Ashmeadiella foveata*. *Hoplitis fulgida*. *Hoplitis hypocrita*. *Megachile subnigra*. *Osmia californica*. Colorado *Osmia* (*Osmia coloradensis*). *Osmia texana*. *Protosmia rubifloris*.

Ericameria nauseosa. *Chrysothamnus nauseosus*. **Rabbitbrush**. July-October.

Bees: Andrenidae: *Andrena citrinihirta*. *Perdita ciliata*. *Perdita scitula*. Apidae: Short Sun-Digger (*Anthophora curta*). *Anthophora exigua*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Great Northern Bumblebee (*Bombus fervidus*). Western Bumblebee (*Bombus occidentalis*). Red-belted Bumblebee (*Bombus rufocinctus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Pacific Little Carpenter Bee (*Ceratina pacifica*). Sunflower Bee (*Diadasia enavata*). *Melissodes bimatrix* (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes lustrus* – (M & N) (fq). Small Long-horned Bee (*Melissodes microstictus*). Pale-marked Long-horned Bee (*Melissodes pallidisignata*). Sunflower Bee (*Svastra obliqua expurgata*) (M & N) California Cuckoo Bee (*Xeromelecta californica*). California Carpenter Bee (*Xylocopa californica*). *Zacosmia maculata*. Colletidae: *Colletes phaceliae*. Spine-shouldered Cellophane Bee (*Colletes simulans*). *Colletes tectiventris*. Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Agapostemon femoratus*. Ultra Green Sweat Bee (*A. texanus*). Bicolored Striped Sweat Bee (*Agapostemon virescens*). Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*. *Lasioglossum incompletum*. Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum mellipes* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). *Lasioglossum trizonatum* (M & N). Megachilidae: Big-cheeked Mason Bee (*Ashmeadiella buconis*). Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*). *Dianthidium pudicum*. *Dianthidium ulkei*. *Heriades cressoni*. *Megachile angelarum*. Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile nevadensis*. Western Leafcutter (*Megachile perihirta*). *Stelis laticinta*.

Many other insects of a few orders including many Hemiptera.

Ericameria nauseosa var. *mojavensis*. *Chrysothamnus nauseosus* ssp. *mojavensis*. **Mojave Rabbitbrush**. This is the San Francisco Bay region main variety. July-October.

Bees: Andrenidae: *Perdita ciliata* (M & N). Apidae: *Melissodes bimatrix* (M & N) (fq). Pale-marked Long-horned Bee (*Melissodes pallidisignata*) (M & N) (fq).

Ericameria nauseosa var. *oreophila*. *Chrysothamnus nauseosus* ssp. *consimilis*. Also var. or ssp. *viridulus*. **Rubber Rabbitbrush**. A couple of collections have been made in Santa Clara County. July-October.

Bees: Apidae: *Melissodes bimatrix* (M & N) (fq). *Melissodes lustrus* (M & N) (fq). California Cuckoo Bee (*Xeromelecta californica*) (M & N).

Ericameria nauseosa var. *speciosa*. *Chrysothamnus nauseosus* ssp. *albicaulis*. **Rubber Rabbitbrush**. A few have been collected in our region. July-October.

Ericameria parishii. *Haplopappus parishii*. *Aster parishii*. **Parish's Rabbitbush**. July-October.

Bees: Apidae: Arizona Ceratina (*Ceratina arizonensis*) (M & N). *Ceratina punctigena* (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N) (fq). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Lasioglossum tegulariforme* (M & N).

Ericameria parryi. *Chrysothamnus parryi*. **Parry's Rabbitbrush**. August-September.

Bees: Halictidae: *Agapostemon femoratus* (M & N).

Erigeron sp.

Bees: Andrenidae: *Andrena buckelli*. *Andrena columbiana* (M & N) (fq). *Andrena nivalis*. *Andrena vierecki*. *Andrena w-scripta*. *Calliopsis fracta*. *Calliopsis obscurella*. Apidae: *Anthophora exigua*. *Anthophora rhodothorax*. Urbane Digger (*Anthophora urbana*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Edwards's Long-horned Bee (*Eucera edwardsii*). *Melissodes melanurus*. Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). *Colletes phaceliae*. Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*). *Lasioglossum ruidosense*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: European Wool Carder Bee (*Anthidium manicatum*). Utah Wool-carder Bee (*Anthidium utahense*). Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Stelis laticinta*. Montana Cuckoo Carder Bee (*Stelis montana*).

Erigeron biolettii. *Erigeron inornatus* var. *biolettii*. **Streamside Daisy**. June-October.

Erigeron canadensis. *Conyza canadensis*. **Horseweed**. June-September.

Bees: Apidae: *Melissodes paululus*. Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Halictus ligatus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum tegulariforme* (M & N).

Flies: Common Oblique Syrphid (*Allograpta obliqua*) (Hilty). Drone Fly (*Eristalis tenax*) (Hilty). Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Erigeron foliosus. *Erigeron stenophyllus*. **Leafy Daisy**. May-September.

Bees: Apidae: *Anthophora petrophila* (M & N). Urbane Digger (*Anthophora urbana*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Diadasia laticauda*. Lupine Long-horned Bee (*Melissodes lupinus*). Small Long-horned Bee (*Melissodes microstictus*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacospia maculata*. Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon to rare.

Erigeron glaucus. **Seaside Daisy**. January-August.

Bees: Apidae: Honeybee (*Apis mellifera*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*) (Brooks, 2020). Western Bumblebee (*Bombus occidentalis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes moorei* (M & N) (fq). Sunflower Bee (*Svastra obliqua expurgata*). Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus oregonensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Punctate Spathulate-Masked Bee (*Hylaeus punctatus*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Peridot Bee (*Augochlorella pomoniella*). Wide-striped Sweat Bee (*Halictus farinosus*). *Haltictis ligatus*. *Halictus tripartitus*. *Lasioglossum incompletum*. *Lasioglossum kincaidii*. Titus' *Lasioglossum* (*Lasioglossum titusi*). Megachilidae: *Anthidium collectum*. Pacific Wool-carder Bee (*Anthidium palliventre*). Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Dianthidium ulkei*. Apical Leafcutter Bee (*Megachile apicalis*) *Megachile coquilletti*. Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile gentilis*. Western Leaf-cutter (*Megachile perihirta*). Colorado Osmia (*Osmia coloradensis*).

UC Bee Lab garden study commends as best cultivars for bees 'Wayne Roderick' and 'Bountiful'. Visitors noted especially Halictidae and Ceratina.

Erigeron greenei. *Erigeron angustatus*. **Greene's Narrow-leaved Daisy**. May-September.

Erigeron inornatus. **California Rayless Fleabane**. June-September.

Bees: Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N).

Erigeron petrophilus. **Cliff Fleabane**. July-August.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon.

Lasioglossum trizonatum (M & N).

Erigeron philadelphicus. **Philadelphia Fleabane**. April-May.

Bees: Andrenidae: *Andrena fragilis*. Apidae: Honeybee (*Apis mellifera*). *Nomada articulata*. Sunflower Bee (*Svastra obliqua*). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus*). Halictidae: *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). Megachilidae: *Hoplitis producta*. Common Little Leaf-cutter Bee (*Megachile brevis*). Flat-tailed Leafcutter Bee (*Megachile mendica*). Golden-tailed Leafcutter (*Megachile relativa*).

Flies: Syrphidae: Thick-legged Hoverfly (*Syrpita pipiens*) (Hilty). *Syrphus ribesii* (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Erigeron reductus. *Erigeron inornatus* var. *reductus*. **Rayless Daisy**. June-August.

Erigeron serpentinus. **Serpentine Daisy**. May-August.

Erigeron supplex. **Supple Fleabane**. May-June.

Eriodictyon sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Lonely Miner (*Andrena sola*) (M & N). *Andrena subtrita*. *Perdita californica* (M & N). *Perdita nitens*. Apidae: *Anthophora flavocincta*. California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Ceratina tejonensis* (M & N). *Eucera actiosa* (M & N). *Eucera delphinii*. Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum olympiae* (M & N). *Lasioglossum pullilabre* (M & N). Megachilidae: *Dioxys pomonae*. Yellowish Green Mason Bee (*Osmia calla*). Dense-haired Mason Bee (*Osmia densa*). *Protosmia rubifloris*. Montana Cuckoo Carder Bee (*Stelis montana*).

Eriodictyon californicum. **Yerba Santa**. May-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). *Andrena candidiformis* (M & N). *Andrena ceanothifloris* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena chlorura*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena pensilis* (M & N). *Calliopsis fracta*. Dark-

tailed Andrena (*Andrena fuscicauda*) (M & N). Apidae: Bumblebee Digger (*Anthophora bomboides*). California Digger (*Anthophora californica*). Pacific Digger (*Anthophora pacifica*) (M & N). Phacelia Digger (*Anthophora phaceliae*). Urbane Digger (*Anthophora urbana*). Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Acantha (*Ceratina acantha*). *Ceratina micheneri* (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). Common Chimney Bee (*Diadasia bituberculata*). *Diadasia rinconis*. *Eucera actiosa* (M & N). *Eucera stretchii*. California Mountain Digger (*Habropoda depressa*). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). California Cuckoo Bee (*Xeromelecta californica*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episopalis*). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). *Hylaeus nunenmacheri*. Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus tripartitus*. *Lasioglossum cooleyi* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*). Megachilidae: *Anthidium collectum*. Utah Wool-carder Bee (*Anthidium utahense*). *Hoplitis hypocrita*. Elderberry Summer Mason Bee (*Hoplitis sambuci*). *Osmia bakeri*. *Osmia californica*. Blue Mason Bee (*Osmia cyanella*). Dense-haired Mason Bee (*Osmia densa*). *Osmia gabrielis*. *Osmia granulosa*. *Osmia latisulcata*. Western Forest Mason Bee (*Osmia nemoris*). Texas *Osmia* (*Osmia texana*). *Osmia tristella*. *Protosmia rubifloris*.

Flies: Bombyliidae: Greater Bee-fly (*Moldenke*). Syrphidae: Pied Hover Fly (*Scaeva pyrastris*) (*Correa*).

Hemiptera: Pleasant Plant Bug (*Closterocoris amoenus*).

Eriogonum sp. **Buckwheats**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Deathcamas Miner Bee (*Andrena astragali*). *Andrena birtwelli*. Mock-orange Miner Bee (*Andrena candida*) (M & N). *Andrena candidiformis* (M & N). *Andrena ceanothifloris* (M & N). *Andrena ceanothifloris cretata*. *Andrena cleodora*. Copper-tinted Miner Bee (*Andrena cupreotincta*). Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). *Andrena helianthi*. Western Red-legged Miner Bee (*Andrena medionitens*). *Andrena nigrihirta*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Pale-faced Miner Bee (*Andrena pallidifovea*). Orange-banded *Andrena* (*Andrena prunorum*). Willow Mining Bee (*Andrena salicifloris*) (M & N). *Andrena striatifrons* (M & N). *Andrena vierecki*. *Andrena w-scripta*. *Perdita ciliata* (M & N). *Perdita claypolei*. *Perdita distropica* (M & N). *Perdita nevadensis*. *Perdita nitens*. *Perdita scitula*. Apidae: *Anthophora flavocincta*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Fernald's Cuckoo Bumblebee

(*Bombus flavidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Sonoran Bumblebee (*Bombus sonorus*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). Clarkia *Ceratina* (*Ceratina sequoiae*) (M & N). American Cellophane-cuckoo Bee (*Epeolus americanus*) (M & N). *Eucera angustifrons* (M & N). Edward's Mourning Bee (*Melecta edwardsii*) (M & N). *Melissodes hurdi* (M & N). Edwards's Long-horned Bee (*Eucera edwardsii*). *Melissodes bimatrix*. *Melissodes hurdi*. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes melanurus* (M & N). Small Long-horned Bee (*Melissodes microstictus*). *Melissodes sternsi* (M & N). *Oreopasites vanduzeei*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: *Colletes angelicus* (M & N). Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Hyaline Cellophane Bee (*Colletes hyalinus oregonensis*) (M & N). Ochraceous Cellophane Bee (*Colletes ochraceus*) (M & N). Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) [M & N – fq]. *Colletes tectiventris*. Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). *Hylaeus maritimus* (M & N) [likely *E. latifolium*]. Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum olympiae* (M & N). *Lasioglossum orthocarpi* (M & N). *Lasioglossum pacificum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Megachilidae: Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Ashmeadiella cubiceps*. *Ashmeadiella rufitarsis*. *Dianthidium parvum*. Short Mason Bee (*Osmia brevis*). *Osmia granulosa*. *Megachile pascoensis*. *Stelis laticincta*. Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

Eriogonum angulosum. **Anglestem Buckwheat**. All year.

Bees: Halictidae: *Halictus tripartitus* (M & N).

Eriogonum argillosum. **Clay Buckwheat**. March-June.

Eriogonum cedrorum. **The Cedars Buckwheat**. June-September.

Eriogonum compositum. **Arrowleaf Buckwheat**. May-July.

Eriogonum covilleum. **Coville's Buckwheat**. May-September.

Eriogonum dasyanthemum. **Chaparral Buckwheat**. May-October.

Eriogonum elongatum. **Longstem Buckwheat**. August-November.

Bees: Andrenidae: *Perdita claypolei*. Apidae: Urbane Digger (*Anthophora urbana*). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N) (fq). Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). Megachilidae: *Heriades cressoni*. *Megachile texana*. *Stelis laticinta*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Eriogonum fasciculatum. **California Buckwheat**. April-September.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*). *Andrena macrocephala* (M & N). *Andrena oenotherae* (M & N). Pale-faced Miner Bee (*Andrena pallidifovea*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena w-scripta* (M & N). *Calliopsis fracta*. *Perdita californica* (M & N). *Perdita claypolei*. Apidae: California Digger (*Anthophora californica*). Short Sun-Digger (*Anthophora curta*). Edward's Digger (*Anthophora edwardsii*). Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Arizona *Ceratina* (*Ceratina arizonensis*). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). *Diadasia laticauda*. *Diadasia nigrifrons*. *Diadasia rinconis*. Separated Cuckoo Bee (*Melecta separata callura*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes paululus*. Robust Long-horned Bee (*Melissodes robustior*). *Melissodes tepida timberlakei*. *Melissodes tessellatus*. *Melissodes velutinus*. *Nomada formula* (M & N). *Oreopasites vanduzeei*. Sunflower Bee (*Svastra obliqua expurgata*). California Cuckoo Bee (*Xeromelecta californica*). *Zacospia maculata* (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) [M & N – fq]. *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*), Buckwheat Masked Bee (*Hylaeus polifolii*). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea mulleri*. Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus* (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). *Lasioglossum tegulariforme* (M & N). Cuckoo Sweat Bee (*Sphecodes arvensiformis*) (M & N). *Sphecodes* sp. #5 (M & N). *Sphecodes* #52 (M & N). Megachilidae: Erhorn's Rotund-Resin Bee (*Anthidiellum erhorni*). *Anthidium edwardsii*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella bigeloviae*. Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Ashmeadiella cactorum*. *Ashmeadiella californica*. *Ashmeadiella foveata*. *Ashmeadiella timberlakei*. *Dianthidium dubium*. *Dianthidium pudicum*, *Dianthidium ulkei*. *Dioxys productus*. *Heriades occidentalis*. *Megachile angelarum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*. Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile gentilis*. *Megachile periherta*. Alfalfa Leafcutter (*Megachile rotundata*). *Megachile*

texana. *Stelis laticincta*. Mellitidae: *Hesperapis ilicifoliae* (M & N).

UC Bee Lab garden study got especially honeybees, Megachilidae (leaf cutter and mason bees); noting many other insects.

In one year of collecting in Pinnacles National Monument this was the most bee-popular diversity species. 8th most recorded for bee visitation in 2011, and 1st in 2012.

In early Pinnacles National Monument surveys, native bee visits were rated as common in two years, uncommon in two years, and rare in one year.

A great diversity of insects of other orders including beetles, butterflies, flies, moths, true bugs and many wasps, including American Sand Wasp.

Eriogonum fasciculatum var. *foliolosum*. **California Buckwheat**. June-August.

In early Pinnacles National Monument surveys, native bee visits were rated as common in two years.

Eriogonum fasciculatum var. *polifolium*. *Eriogonum polifolium*. **Eastern Mojave Buckwheat**. June-August. Learned rather late this one actually does range into our area.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*) (M & N).

Eriogonum gracile. **Slender Woolly Buckwheat**. May-September.

Bees: Andrenidae: *Perdita claypolei*. Apidae: Honeybee (*Apis mellifera*). Prickly Ceratina (*Ceratina acantha*). Arizona Ceratina (*Ceratina arizonensis*). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes paululus*. *Melissodes personatellus*. *Melissodes tepida timberlakei*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Agapostemon femoratus* (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*) (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium edwardsii*. *Ashmeadiella aridula*. Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Ashmeadiella rufitarsis*. *Dianthidium parvum*. Apical Leafcutter Bee (*Megachile apicalis*). Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile gentilis*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Eriogonum latifolium. **Seaside Buckwheat**. July-September.

Bees: Apidae: Honeybee (*Apis mellifera*) (Brooks, 2020). Black-notched Bumblebee (*Bombus bifarius*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) – (Brooks, 2020) (fq) . Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes lustrus*. *Nomada formula* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus gaudialis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) Halictidae: *Lasioglossum incompletum* (M & N). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*) – also noted as a source of fibers scraped from its soft leaves to make its nest (Flora, Fall, 2020).

UC Bee Lab garden study notes it great for coastal areas, gets bumblebees and Halictids especially.

Eriogonum nudum. *Eriogonum latifolium nudum*. **Naked Buckwheat**. May-August.

Bees: Andrenidae: *Andrena birtwelli* (M & N). *Andrena cleodora* (M & N). *Andrena knuthiana* fq. Western Red-legged Miner Bee (*Andrena medionitens*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*). Shifty Miner Bee (*Andrena saccata*). *Andrena transnigra*. *Perdita claypolei*. Nevada Miner Bee (*Perdita nevadensis*). Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). American Cellophane-cuckoo Bee (*Epeolus americanus*) (M & N). Compact Cellophane Cuckoo Bee (*Epeolus compactus*). Lupine Long-horned Bee (*Melissodes lupinus*). *Oreopasites vanduzeei*. California Cuckoo Bee (*Xeromelecta californica*). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Hyaline Cellophane Bee (*Colletes hyalinus*). Kincaid's Cellophane Bee (*Colletes kincaidii*). Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Modest Masked Bee (*Hylaeus modestus*). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Buckwheat Masked Bee (*Hylaeus polifolii*). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum nevadense* (M & N). *Sphecodes* sp. #55 (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). Pacific Wool-carder Bee (*Anthidium palliventre*). Utah Wool-carder Bee (*Anthidium utahense*). *Coelioxys gilensis*. *Megachile angularum*. *Megachile coquilletti*. Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile gentilis*. Broad-handed Leafcutter (*Megachile latimanus*). *Megachile montivaga*. Western Leafcutter (*Megachile perihirta*). *Megachile texana*. Colorado *Osmia* (*Osmia coloradensis*). *Stelis laticinta*. Montana Cuckoo Carder Bee (*Stelis montana*).

UC Bee Lab garden study noted especially honeybees and bumblebees.

Flies: Syrphidae: Drone Fly (*Eristalis tenax*) (Correa). Thick-legged Hoverfly (*Syrirta pipiens*) (Correa). Calligrapher Fly (*Toxomerus marginatus*) (Correa). *Toxomerus occidentalis* (Correa).

Eriogonum parvifolium. **Seacliff Buckwheat**. All year.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Eriogonum roseum. *Eriogonum vimineum*. *Eriogonum virgatum*. **Wand Buckwheat**. April-October.

Bees: Andrenidae: *Perdita claypolei* (M & N). Apidae: Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes melanurus*. Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N).

Eriogonum saxatile. **Hoary Buckwheat**. May-August.

Bees: Apidae: California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*).

Eriogonum umbellatum. **Sulphur Buckwheat**.

Bees: Andrenidae: *Andrena amphibola*. *Andrena buckelli*. Western Red-legged Miner Bee (*Andrena medionitens*). *Andrena transnigra*. *Perdita claypolei*. Apidae: Crotch's Bumblebee (*Bombus crotchii*). Golden Northern Bumblebee (*Bombus fervidus*). Red-belted Bumblebee (*Bombus rufocinctus*). Compact Cellophane-cuckoo Bee (*Epeolus compactus*). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*). *Colletes phaceliae*. Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Episcopal Masked Bee (*Hylaeus episcopalis*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Megachilidae: Emarginate Wool-carder Bee (*Anthidium emarginatum*). *Anthidium formosum*. *Anthidium placitum*. *Megachile frigida*. Golden-tailed Leafcutter (*Megachile relativa*).

Eriogonum vimineum. *Eriogonum elegans*. **Wickerstem Buckwheat**. June-July. See also *E. roseum*; these may rather easily be confounded.

Bees: Andrenidae: *Perdita claypolei* (M & N). Apidae: Urbane Digger (*Anthophora urbana*). Western Bumblebee (*Bombus occidentalis*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Melissodes lupinus*. Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Peridot Bee (*Augochlorella pomoniella*). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus*. *Lasioglossum tegulariforme* (M & N). *Sphecodes* #54 (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Eriogonum wrightii. *Eriogonum nodosum*. *Eriogonum subscaposum*. **Bastardsage**. June-August.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*) (M & N). *Perdita claypolei*. Apidae: Urbane Digger (*Anthophora urbana*). Small Long-horned Bee (*Melissodes microstictus*) (M & N). *Melissodes personatellus* (M & N). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) (M & N) (fq). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Mesilla Masked Bee (*Hylaeus mesillae*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum incompletum*. *Lasioglossum nevadense* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Ashmeadiella cactorum*. *Ashmeadiella californica*. *Dianthidium ulkei*. *Megachile angularum*. Common Little Leaf-cutter Bee (*Megachile brevis*). Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile texana*. *Stelis laticinta*.

Others include a velvet ant (*Dasymutilla californica*), and interesting wasps.

Eriophyllum sp.

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Western Bumblebee (*Bombus occidentalis*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Megachilidae: *Anthidium edwardsii*. Utah Wool-carder Bee (*Anthidium utahense*). *Osmia glauca*.

Eriophyllum confertiflorum. **Golden Yarrow**. February-August.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). Mock-orange Miner Bee (*Andrena candida*). *Andrena nigrihirta*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena w-scripta* (M & N). *Perdita californica* (M & N). Apidae: Short Sun-Digger (*Anthophora curta*) *Anthophora petrophila* (M & N) (fq). Urbane Digger (*Anthophora urbana*). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). *Lasioglossum titusi* (fq, M & N). Sphecodes #52 (M & N). Sphecodes #53 (M & N). Sphecodes sp. #62 (M & N). Megachilidae: *Ashmeadiella californica*. *Hoplitis remotula*. *Megachile subnigra*. Colorado Osmia (*Osmia coloradensis*). *Osmia montana*. Montana Cuckoo Carder Bee (*Stelis montana*). Mellitidae: *Hesperapis ilicifoliae*. Clarkia Evening Bee (*Hesperapis regularis*).

In early Pinnacles National Monument surveys, native bee visits were rated as generally uncommon.

Eriophyllum lanatum. **Common Woolly Sunflower**. May-August.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Pale-faced Miner Bee (*Andrena pallidifovea*). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Prickly Ceratina (*Ceratina acantha*). *Ceratina tejonensis*. *Diadasia nigrifrons*. Compact Cellophane-cuckoo Bee (*Epeolus compactus*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus* (M & N). *Lasioglossum titusi*. Megachilidae: *Heriades cressoni*. White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis howardi*. *Megachile angularum*. *Megachile montivaga*. Western Leafcutter (*Megachile perihirta*). *Megachile texana*. Yellowish Green Mason Bee (*Osmia calla*). Colorado Osmia (*Osmia coloradensis*). Blue Mason Bee (*Osmia cyanella*). *Osmia exigua*. Happy Mason Bee (*Osmia laeta*). *Osmia malina*. *Osmia montana*. Western Forest Mason Bee (*Osmia nemoris*). *Osmia texana*. *Osmia trevoris*. *Protosmia rubifloris*. Montana Cuckoo Carder Bee (*Stelis montana*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Eriophyllum latilobum. **San Mateo Woolly Sunflower**. May-June.

Eriophyllum staechadifolium. **Seaside Woolly Sunflower**. May-August.

Bees: Apidae: Honeybee (*Apis mellifera*) (Brooks, 2020). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*) (Brooks, 2020). Western Bumblebee (*Bombus occidentalis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N) (fq). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Halictidae: “*Dialictus*” [*Lasioglossum*?] (Brooks, 2020).

Flies: Syrphidae: Drone Fly (*Eristalis tenax*) (Brooks, 2020). *Toxomerus occidentalis* (Brooks, 2020). Pied Hover Fly (*Scaeva pyrastris*) (Brooks, 2020).

Erodium sp. The native species now known as *California macrophylla* was formerly assigned to this genus.

Bees: Apidae: Edward’s Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Eryngium sp.

This genus attracts many bees, but there is almost no documentation for our native species!!

Eryngium aristulatum. **California Eryngo**. July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Diadasia angusticeps* (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M &

N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N) (fq). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Sphecodes* sp. #61 (M & N).

Eryngium armatum. **Coastal Eryngo**. May-August.

Eryngium articulatum. **Coyote Thistle**. June-September.

Bees: Megachilidae: *Anthidium edwardsii*.

This is the showiest species. East Bay Wilds reported Gordon Frankie spotted 19 bee species in one afternoon visit to their Oakland Nursery, on flowering container specimens.

Eryngium castrense. **Great Valley Eryngo**. April-July.

Eryngium constancei. **Loch Lomond Eryngo**. April-June.

Eryngium jepsonii. April-August.

Eryngium racemosum. **Delta Eryngo**. June-October.

Eryngium spinosepalum. **Spinysepal Eryngo**. April-May.

Eryngium vaseyi. **Coyotethistle**. May-June.

Erysimum sp.

Bees: Andrenidae: Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Silver Digger (*Habropoda miserabilis*) (M & N). Colletidae: Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Lasioglossum pavonotum* (M & N). Megachilidae: *Osmia juxta*. *Osmia paradisica*.

Erysimum ammophilum. **Coast Wallflower**. February-June.

Bees: Apidae: Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Erysimum capitatum. *Erysimum asperum*. **Western Wallflower**.

Bees: Andrenidae: *Andrena amphibola*. Yellow-legged Miner Bee (*Andrena cressonii*). Western Red-legged Miner Bee (*Andrena medionitens*) (M & N) (fq). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena vicinoides*. Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Prickly Ceratina (*Ceratina acantha*). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). California Mountain Digger (*Habropoda depressa*). Halictidae: Ultra Green

Sweat Bee (*Agapostemon texanus*). Tripartite Sweat Bee (*Halictus tripartitus*). *Lasioglossum cooleyi*. *Lasioglossum mellipes*. *Lasioglossum olympiae* (M & N). *Lasioglossum ruidosense*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). *Lasioglossum trizonatum*. Megachilidae: *Hoplitis fulgida*. *Megachile angelarum*. *Megachile gemula*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Erysimum concinnum. **Headland Wallflower**.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). Silver Digger (*Habropoda miserabilis*).

Erysimum franciscanum. **San Francisco Wallflower**. March-June.

Erysimum menziesii. **Menzies' Wallflower**.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*).

Flies: Syrphidae: *Eupeodes fumipennis*.

Erysimum teretifolium. **Ben Lomond Wallflower**.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Photograph shows a Chalcedon Checkerspot on the flowers.

A camcorder study shows many visits by small solitary bees, large solitary bees, bumblebees, butterflies, and other insects:

Melen, M.K., Herman, J.A., Lucas, J., O'Malley, R.E., Parker, I.M., Thom, A.M. and Whittall, J.B. (2016), Reproductive success through high pollinator visitation rates despite self incompatibility in an endangered wallflower. *American Journal of Botany*, 103: 1979-1989. doi:10.3732/ajb.1600193

Erythranthe sp. Many now *Diplacus* or *Mimulus*, see the account there.

Erythranthe cardinalis. *Mimulus cardinalis*. **Scarlet Monkeyflower**.

Bees: Apidae: Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Megachilidae: *Megachile texana*. *Osmia cobaltina*.

Erythranthe guttata. *Mimulus guttatus*. **Seep Monkeyflower**.

Bees: Andrenidae: Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) (M & N) (fq). *Andrena thaspi*. Apidae: Orange-tipped Wood-digger (*Anthophora terminalis*). Urbane Digger

(*Anthophora urbana*). Black-notched Bumblebee (*Bombus bifarius*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Common Chimney Bee (*Diadasia bituberculata*) (M & N). Halictidae: *Lasioglossum mellipes* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: *Anthidium mormonum*.

Moldenke got 9 species of bees on it.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year, rare in 2 years.

Erythronium sp. **Trout Lilies.**

Bees: Andrenidae: Hippotes's Miner Bee (*Andrena hippotes*). *Andrena nigrihirta*. Apidae: Bear-like Digger Bee (*Anthophora ursina*). Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*).

Erythronium californicum. **California Fawnlily.** March-April.

Erythronium helenae. **Pacific Fawnlily.** March-May.

Erythronium revolutum. **Mahogany Fawn Lily.** March-July.

Eschscholzia sp.

Bees: Andrenidae: Pale-faced Miner Bee (*Andrena pallidifovea*). Apidae: Crotch's Bumblebee (*Bombus crotchii*) (M & N).

Eschscholzia caespitosa. **Tufted Poppy.** March-August.

Bees: Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*).

Eschscholzia californica. **California Poppy.** February-September.

Bees: Andrenidae: *Andrena angustella* (M & N) (fq) "one population" seems oligolectic on this species (San Mateo County). Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica*. *Andrena bucculenta* (M & N). *Andrena cercocarpi*. *Andrena concinnula*. Lupine Miner Bee (*Andrena lupinorum*). *Andrena pensilis* – (M & N) (fq). *Andrena perimelas*. *Andrena pertristis*. Piper's Miner Bee (*Andrena piperi*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena puthua* (M & N). Shifty Miner Bee (*Andrena saccata*). *Calliopsis obscurella* fq. *Perdita distropica* (M & N) (fq). *Perdita nitens*. Apidae: Bumblebee Digger (*Anthophora bomboides*). Short Sun-Digger (*Anthophora curta*). Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*). Western Bumblebee (*Bombus occidentalis*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Arizona Ceratina (*Ceratina arizonensis*). Parthenogenic Ceratina (*Ceratina dallatorreana*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Common Chimney Bee (*Diadasia*

bituberculata)). Sunflower Bee (*Diadasia enavata*) (M & N). *Eucera actuosa* – (M & N) (fq). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Agile Long-horned Bee (*Melissodes agilis*) (M & N). *Melissodes tepida timberlakei*. California Carpenter Bee (*Xylocopa californica*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Valley Carpenter Bee (*Xylocopa varipuncta*) (M & N). *Zacosmia maculata* (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*), Buckwheat Masked Bee (*Hylaeus polifolii*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Peridot Bee (*Augochlorella pomoniella*) (M & N) (fq). *Dufourea femorata*. *Dufourea mulleri*. *Dufourea sandhouseae* [M & N – fq]. *Dufourea vernalis*. Wide-striped Sweat Bee (*Halictus farinosus*) (fq). *Halictus ligatus* (fq). Orange-legged Furrow Bee (*Halictus rubicundus*) *Halictus tripartitus*. *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum*. *Lasioglossum kincaidii* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum olympiae*. *Lasioglossum pavonotum*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (fq – M. & N.). *Lasioglossum tegulariforme*. Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). *Micralictoides ruficaudus* [M & N – fq]. Megachilidae: White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis howardi*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile gentilis*. *Megachile montivaga*. Western Leafcutter Bee (*Megachile perihirta*). Alfalfa Leafcutter Bee (*Megachile rotundata*). *Osmia clarescens*. *Osmia gabrielis*. *Osmia glauca*. *Osmia integra*. Kincaid's Mason Bee (*Osmia kincaidii*). Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). *Osmia visenda*. *Protosmia rubifloris*. Melittidae: *Hesperapis ilicifoliae* (M & N). *Hesperapis pellucida* (M & N – fq). Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

UC Bee Lab garden study notes it an important pollen producer; got especially bumblebees, Halicidae, honeybees.

This was the third most bee-popular plant species in years of collecting in Pinnacles National Monument.

In early Pinnacles National Monument surveys, native bee visits were rated as common in four years, uncommon in two years.

Other insects include the hoverfly, Margined Calligrapher (*Toxomerus marginatus*), and European Paper Wasp (*Polistes dominula*).

Flies: Syrphidae: Narcissus Bulb Fly (*Merodon equestris*) (Speight).

Eucrypta chrysanthemifolia. **Spotted Hideseed**. March-June.

Bees: Andrenidae: *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*).

Euphorbia sp.

Bees: Andrenidae: Miserable *Andrena* (*Andrena miserabilis*). Apidae: Short Sun-Digger

(*Anthophora curta*). Arizona Ceratina (*Ceratina arizonensis*). *Zacosmia macululata*. Halictidae: *Dufourea mulleri*. *Halictus tripartitus*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Megachilidae: *Ashmeadiella bigeloviae*. *Ashmeadiella rufitarsis*. *Dioxys pacifica*.

Euphorbia crenulata. **Chinesecaps**. May-August.

Bees: Andrenidae: *Andrena pertristis*. Colletidae: Vertical Masked Bee (*Hylaeus verticalis*) (M & N).

Euphorbia serpyllifolia. *Euphorbia serpyllifolia*. *Chamaesyce serpyllifolia*. **Thyme-leaved Spurge**. June-August.

Bees: Halictidae: *Halictus tripartitus*. *Lasioglossum tegulariforme* (M & N).

Euphorbia spathulata. **Warty Spurge**. March-May.

Eurybia radulina. *Aster radulinus*. *Aster eliasii*. *Webeaster radulinus*. **Roughleaf Aster**. July-October.

Euthamia occidentalis. *Solidago occidentalis*. **Western Goldenrod**. August-October.

Bees: Andrenidae: *Andrena citrinihirta*. *Perdita ciliata*. *Perdita interserta*. Apidae: Urbane Digger (*Anthophora urbana*) (M & N) (fq). Honeybee (*Apis mellifera*). Western Bumblebee (*Bombus occidentalis*) (Laine). *Melissodes appressus*. Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes lutulentus* – (M & N0) (fq). Small Long-horned Bee (*Melissodes microstictus*). Pale-marked Long-horned Bee (*Melissodes pallidisignata*) (M & N) (fq). *Melissodes paululus*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). California Carpenter Bee (*Xylocopa californica*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N) (fq). Slender-faced Masked Bee (*Hylaeus leptcephalus*). Mesilla Masked Bee (*Hylaeus mesillae*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Lasioglossum incompletum*. *Lasioglossum tegulariforme* (M & N). Alkali Bee (*Nomia melanderi*) (M & N0). Megachilidae: *Megachile gentilis*. Western Leafcutter (*Megachile perihirta*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

An ichneumonid wasp also noted. Gets many insects! Butterflies include *Coronis fritillaria*.

Fabaceae. **Pea Family**. Aka legume family.

This is one of the very most bee-popular families of plants.

Bees: Apidae: Edward's Digger (*Anthophora edwardsii*) (M & N) – “Polylectic, ... females perhaps restricted in pollen collecting to *Astragalus*, *Lupinus*, and related legumes.” Great

Northern Bumblebee (*Bombus fervidus*) (M & N) – queens “heavy emphasis on legumes”.
Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N) said to especially like this family.
Edward’s Long-horned Bee (*Eucera edwardsii*) (M & N) – “Probably polylectic, with emphasis on legumes.”
Monk Longhorn (*Eucera frater*) (M & N) – Polylectic, but specific to legumes for pollen.”

Forestiera pubescens. *Bigelovia* spp. *Forestiera acuminata*. *Forestiera neomexicana*. *Adelia neomexicana*. **Desert Olive**. Considered our only Californian *Foresiera* sp. March-April.

Bees: *Melissodes bimatrix* (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes lustrus* (M & N) (fq).

Fragaria sp. **Strawberries**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-haired Miner Bee (*Andrena auricoma*). *Andrena chlorura*. *Andrena forbesii*. Hippotes’s Miner Bee (*Andrena hippotes*). *Andrena nigrihirta*. Willow Mining Bee (*Andrena salicifloris*). Subtle Miner Bee (*Andrena subtilis*). *Andrena w-scripta*. Apidae: Red-belted Bumblebee (*Bombus rufocinctus*). Edward’s Long-horned Bee (*Eucera edwardsii*). *Nomada articulata*. Halictidae: *Halictus virgatellus*. Megachilidae: Short Mason Bee (*Osmia brevis*). *Osmia inurbana*. Kincaid’s Mason Bee (*Osmia kincaidii*). *Osmia nifoata* *Osmia paradisica*. *Osmia sandhousae*. *Osmia trevoris*.

Fragaria chiloensis. **Beach Strawberry**. February-March.

Bees: Apidae: Silver Digger (*Habropoda miserabilis*). Edward’s Mourning Bee (*Melecta edwardsii*) [Kaufeldt, 1954]. Halictidae: *Lasioglossum pavonotum*.

Fragaria vesca. *Fragaria californica* **Wood Strawberry**. February-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena chlorura*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). *Nomada* spp. (M & N). Megachilidae: Short Mason Bee (*Osmia brevis*). Blue Mason Bee (*Osmia cyanella*). *Osmia potentillae*. *Protosmia rubifloris*.

Flies: Greater Bee-fly (*Bombylius major*) (Moldenke). Drone Fly (*Eristalis tenax*) p. Thick-legged Hoverfly (*Syrirta pipiens*) np. *Toxomerus occidentalis* np.

Frangula californica. *Rhamnus californica*. **California Coffeeberry**. June-August.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Sandpit Mining Bee (*Andrena barbilabris*). Mock-orange Miner Bee (*Andrena candida*) (M & N). *Andrena chlorura*. *Andrena cleodora*. Copper-tinted Miner Bee (*Andrena cupreotincta*). *Andrena edwardsi*. Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). *Andrena hemileuca*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena omninigra* (M & N). Orange-banded *Andrena* (*Andrena prunorum*)

(M & N). Lonely Miner (*Andrena sola*). *Andrena w-scripta* (M & N). Apidae: Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (fq). Prickly Ceratina (*Ceratina acantha*) (M & N). *Melissodes bimatrix*. Lupine Long-horned Bee (*Melissodes lupinus*). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Yerba Santa Masked Bee (*Hylaeus calvus*). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum*. Nevada Sweat Bee (*Lasioglossum nevadense*). *Lasioglossum nigrescens* (M & N). *Lasioglossum pullilabre* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). *Lasioglossum trizonatum* (M & N). Cuckoo Sweat Bee (*Sphecodes arvensiformis*) (M & N). *Sphecodes #52* (M & N). Megachilidae: *Dioxys pacifica*. *Megachile angelarum*. *Megachile texana*. Dense-haired Mason Bee (*Osmia densa*). *Stelis laticinta*.

Moldenke captured 7 bee species and 14 insect species in all on its flowers.

Wasps: *Vespula* sp. (Brooks, 2020).

Frangula californica ssp. *californica*. *Rhamnus californica*. **California Coffeeberry**. April-May.

Bees: Apidae: Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Frankenia salina. *Frankenia grandifolia*. **Alkali Seaheath**. May-October.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*). *Anthophora flavocincta*. *Diadasia consociata*. Squash Bee (*Peponapis pruinosa*). California Longhorn-Cuckoo (*Triepeolus californicus*) (M & N). Colletidae: *Hylaeus conspicuus*. Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Lasioglossum kincaidii* (M & N). Megachilidae: *Ashmeadiella californica*. Common Little Leaf-cutter Bee (*Megachile brevis*).

Fraxinus sp. **Ash**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*).

Fraxinus dipetala. **Flowering Ash**. March-June.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Fremontodendron sp. **Flannelbush**.

Bees: Apidae: *Eucera stretchii* (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis* orpifex) (M & N).

Fremontodendron californicum. *Fremontia californica*. **California Flannelbush**. May-June.

Bees: Andrenidae: Yellow-legged Miner Bee (*Andrena cressonii*). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N) (fq). Yerba Santa Masked Bee (*Hylaeus calvus*). Halictidae: *Lasioglossum ovaliceps* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Fritillaria sp.

Bees: Andrenidae: *Andrena w-scripta* (M & N).

Fritillaria affinis. *Fritillaria lanceolata*. **Mission Bells**. March-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*).

Fritillaria agrestis. **Stinkbells**. March-June.

Fritillaria biflora. **Chocolate Lily**. March-April.

Fritillaria falcata. **Talus Fritillary**. March-May.

Fritillaria lanceolata var. *tristulus*. **Marin Checker Lily**. February-May.

Fritillaria liliacea. **Fragrant Fritillary**. February-April.

Fritillaria pluriflora. **Adobe Lily**. February-April.

Fritillaria purdyi. **Purdy's Fritillary**. March-June.

Galium sp.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N).

Galium nuttallii. **Climbing Bedstraw**. March-July.

Bees: Andrenidae: Lonely Miner (*Andrena sola*) (M & N).

Galium trifidum. **Threepetal Bedstraw**. June-July.

Bees: Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*).

Flies: Syrphidae: Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus*

marginatus) (Hilty).

Gamochaeta ustulata. Gnaphalium purpureum. **Featherweed**. April-July.

Gaultheria shallon. **Salal**. April-May.

Bees: Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Sitka Bumblebee (*Bombus sitkensis*).

Gentiana sp. **Gentian**.

Bees: Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N).

Gentiana affinis. **Pleated Gentian**. July-September.

Gentiana sceptrum. **King's Scepter Gentian**. July-September.

Geranium sp.

Bees: Andrenidae: *Calliopsis scutellaris*. Apidae: *Anthophora flavocincta*. Red-belted Bumblebee (*Bombus rufocinctus*). *Diadasia nigrifrons* (M & N). *Melissodes tepida timberlakei* (M & N). Squash Bee (*Peponapis pruinosa*). Halictidae: Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Megachilidae: Common Little Leafcutter Bee (*Megachile brevis*). Bufflehead Mason Bee (*Osmia bucephala*). Blue Orchard Bee (*Osmia lignaria*). *Osmia physariae*.

Geranium bicknellii. **Bicknell's Geranium**. January-August.

Geranium carolinianum. **Carolina Geranium**. April-June.

Bees: Apidae: *Nomada articulata*. Megachilidae: *Hoplitis producta*.

Flies: Syrphidae: Calligrapher Fly (*Toxomerus marginatus*) (Hilty) (fq).

Gilia sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). Caerulean Miner Bee (*Andrena caerulea*) – (M & N) (fq). Greenbellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena chlorura*. Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). Small Green Miner Bee (*Andrena microchlora*). *Andrena nemophilae*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Clover *Andrena* (*Andrena plana*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Subtle Miner Bee (*Andrena subtilis*) (M & N). *Calliopsis fracta*. *Calliopsis obscurella* (M & N). *Panurginus melanocephalus* (M & N). Apidae: *Anthophora flavocincta*. *Anthophora petrophila*. Fuzzy-horned Bumblebee (*Bombus mixtus*). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Pacific Cuckoo Bee

(*Melecta pacifica*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Dufourea femorata* (M & N) (fq). *Dufourea gilia* (M & N). *Dufourea tarsata* (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum pullilabre* (M & N). Megachilidae: *Osmia albolateralis*. Kincaid's Mason Bee (*Osmia kincaidii*). *Osmia latisulcata*. *Protosmia rubifloris*.

Gilia achilleifolia. **California Gilia**. February-April.

Bees: Andrenidae: *Andrena* sp. Apidae: Honeybee (*Apis mellifera*). Prickly Ceratina (*Ceratina acantha*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*). *Dufourea* sp. Wide-striped Sweat Bee (*Halictus farinosus*). Megachilidae: *Ashmeadiella californica*.

Most of above from Grant & Grant, 1965. They also noted bee flies (*Bombylius lancifer*), butterflies, and flower specialist beetles:

Beetles: Melyridae: *Eschatocrepis constrictus*. Mordellidae: *Mordella* sp.

Lepidoptera: Unidentified pierid. West Coast Lady. Gulf Fritillary. Western Tiger Swallowtail. *Adela simplicella*.

UC Bee Lab garden study found especially bumblebees, honeybees and Andrenid bees.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Gilia achilleifolia ssp *multicaulis*. *Gilia multicaulis*. **Many Stemmed Gilia**. February-April.

Bees: Andrenidae: *Andrena atypica*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Apidae: Honeybee (*Apis mellifera*). Prickly Ceratina (*Ceratina acantha*) (M & N). Colletidae: *Hylaeus* sp. (Grant & Grant). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*). *Dufourea sandhouseae* (M & N). *Halictus farinosus*. *Halictus tripartitus* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). *Micralictoides ruficaudus* (M & N). Megachilidae: *Osmia inurbana*.

Gilia angelensis. **Chaparral Gilia**. March-May.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Grant & Grant note:

Bees: Apidae: Honeybee (*Apis mellifera*). Halictidae: *Dufourea* sp. *Halictus* spp. Megachilidae: *Ashmeadiella californica*. *Chelostoma* sp.

Flies: Syrphidae: Drone Fly (*Eristalis tenax*). Three other species, unidentified.

Lepidoptera: West Coast Lady. Fiery Skipper.

Beetles: Melyridae.

Flies: Syrphidae: Drone Fly (*Eristalis tenax*).

Gilia capitata. **Blue Thimble-flower. Globe Gilia.** February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena cryptanthae* (M & N). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Pale-faced Miner Bee (*Andrena pallidifovea*). Orange-banded *Andrena* (*Andrena prunorum*). Apidae: Honeybee (*Apis mellifera*) (fq). Urbane Digger (*Anthophora urbana*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes microstictus*. *Melissodes tepida timberlakei*. Sunflower Bee (*Svastra obliqua expurgata*). Yellow-breasted Cuckoo Nomad Bee (*Triepeolus paenepectoralis*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea femorata* [M & N – fq]. *Dufourea mulleri*. *Dufourea vernalis*. Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus*. Megachilidae: *Anthidium atrifrons*. *Anthidium edwardsii*. *Chelostoma californicum*. *Hoplitis fulgida*. Western Leafcutter (*Megachile perihirta*). *Osmia californica*. Kincaid's Mason Bee (*Osmia kincaidii*). Blue Orchard Bee (*Osmia lignaria*). *Protosmia rubifloris*.

UC Bee Lab garden study found especially bumblebees, honeybees and Andrenid bees.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in three years.

Grant & Grant note that during the warm parts of the day visited by various bees, bee flies, beetles, and butterflies. They offer some regional records from their observations for various segregates of the species in their book.

Gilia clivorum. **Purplespot Gilia.** February-June.

Grant & Grant note it is automatically self-pollinating and creates vigorous inbred progeny.

Gilia millefoliata. **Manyleaf Gilia.** April-July.

Grant & Grant note it is automatically self-pollinating and creates vigorous inbred progeny.

Gilia tenuiflora. **Greater Yellowthroat Gilia.**

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*) (M & N). Halictidae:

Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N).
Lasioglossum nevadense (M & N). Megachilidae: *Heriades cressoni*.

Grant & Grant observed especially a rather small beefly.

Gilia tricolor. **Bird's-eyes**. April-August.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena torulosa* (M & N). Apidae: *Tetralonia* sp. Halictidae: *Dufourea femorata*. *Dufourea sandhouseae* (M & N). *Halictus* sp. *Lasioglossum pullilabre* (M & N). Megachilidae: *Osmia distincta* (Grant & Grant). *Protosmia rubiflorus*.

Flies: Bombyliidae: *Bombylius lancifer*. Greater Beefly (*Bombylius major*). *Pantarbes* sp.
Conophorus sp.(all from Grant & Grant).

Beetles: Melyridae: *Malachius mirandus*.

Grant & Grant: “The flowers are visited most abundantly by various small megachilid, halictid, and andrenid bees, which settle on the stamens or in the throat to collect pollen or obtain nectar. Various beeflies also visit the flowers frequently. Both the bees and beeflies carry pollen on the venter.”

Glycyrrhiza lepidota. **American Licorice**. June-August.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*). Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Prickly Ceratina (*Ceratina acantha*) (M & N). Megachilidae: *Anthidium maculosum*. *Dianthidium pudicum*. *Megachile angelarum*. Dense-haired Mason Bee (*Osmia densa*). *Stelis laticinta*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Gnaphalium sp. **Cudweeds**. Most California native species now assigned to *Pseudognaphalium* (which see) or *Gamochaeta*.

Bees: Halictidae: *Lasioglossum incompletum* (M & N). *Lasioglossum tegulariforme* (M & N).

Gnaphalium palustre. **Lowland Cudweed**. May-September.

Grindelia sp.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*). Orange-banded *Andrena* (*Andrena prunorum*). *Andrena w-scripta*. *Perdita californica* (M & N). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N) (fq). *Anthophora exigua*. *Anthophorula chionura* (seems exclusive to this genus – M & N). *Anthophorula nitens* (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Yellow-

fronted Bumblebee (*Bombus flavifrons*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). *Diadasia consociata* (M & N). Sunflower Bee (*Diadasia enavata*) (M & N). Agile Long-horned Bee (*Melissodes agilis*) – (M & N) (fq). *Melissodes hurdi* (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N) (fq). *Melissodes lutulentus*. Small Long-horned Bee (*Melissodes microstictus*). *Melissodes moorei*. Pale-marked Long-horned Bee (*Melissodes pallidesignata*) (M & N) (fq). *Melissodes paululus* (M & N) (fq). Robust Long-horned Bee (*Melissodes robustior*) (M & N) (fq). *Melissodes sternsi* (M & N) (fq). *Nomada formula* (M & N). Sunflower Cuckoo Nomad Bee (*Triepeolus helianthi*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: *Colletes phaceliae*. Colorado Yellow-faced Bee (*Hylaeus coloradensis*). *Hylaeus conspicuus* (M & N). *Hylaeus maritimus* (M & N) [likely coastal]. Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Megachilidae: *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Dianthidium parvum*. Golden-tailed Leafcutter (*Megachile relativa*). Dense-haired Mason Bee (*Osmia densa*). *Osmia penstemonis*. Montana Cuckoo Carder Bee (*Stelis montana*).

Flies: Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Abela).

Grindelia camporum. *Grindelia robusta*. *Grindelia paludosa*. *Grindelia procera*. **Great Valley Gumweed**. April-October. Note: did not “get” all the synonyms until late in the process, so even more records belong here.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*). Urbane Digger (*Anthophora urbana*) (M & N). Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenshii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Parthenogenic Ceratina (*Ceratina dallatorreana*). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Diadasia consociata* (M & N). Sunflower Bee (*Diadasia enavata*). *Hesperonomada melanantha* (M & N). *Melissodes appressus*. *Melissodes bimatrix* (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) – (M & N) (fq). *Melissodes lustrus*. *Melissodes pallidesignata*. Robust Long-horned Bee (*Melissodes robustior*). Sunflower Bee (*Svastra obliqua expurgata*). *Melissodes hurdi*. Pale-marked Long-horned Bee (*Melissodes pallidesignata*) (M & N) (fq). Robust Long-horned Bee (*Melissodes robustior*) (M & N). Black-banded Cuckoo Bee (*Triepeolus melanarius*). Colletidae: *Hylaeus conspicuus*. Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N) (fq). *Halictus ligatus* (fq). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N) (fq). *Lasioglossum pullilabre* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: *Anthidium maculosum*. *Ashmeadiella aridula astragali*. *Ashmeadiella californica*. Apical Leafcutter Bee (*Megachile apicalis*). Common Short Leafcutter Bee (*Megachile brevis*). Colorado Osmia (*Osmia coloradensis*).

Grindelia hirsutula. *Grindelia maritima*. *Grindelia elata*. **Chaparral Gumweed**. June-September.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Black-notched Bumblebee

(*Bombus bifarius*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*). Sunflower Bee (*Diadasia enavata*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Robust Long-horned Bee (*Melissodes robustior*). California Cuckoo Bee (*Xeromelecta californica*). Colletidae: *Colletes* sp. (Brooks, 2020). *Hylaeus maritimus*. Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. *Halictus tripartitus*. *Lasioglossum incompletum*. Megachilidae: *Ashmeadiella californica*. Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*). *Dianthidium ulkei*. *Megachile angelarum*. Apical Leafcutter Bee (*Megachile apicalis*). Common Little Leaf-cutter Bee (*Megachile brevis*). Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile montivaga*. Western Leaf-cutter (*Megachile perihirta*). Colorado Osmia (*Osmia coloradensis*). Ashmead's Cuckoo Carder Bee (*Stelis ashmeadiellae*). Mellitidae: *Clarkia Evening Bee* (*Hesperapis regularis*) (M & N).

UC Bee Lab garden study found especially Megachilidae (leafcutter and mason bees), Long-horned bees (*Melissodes*), honeybees and Halictidae.

Flies: Syrphidae: Drone Fly (*Eristalis tenax*) (Brooks, 2020). Tufted Globetail (*Sphaerophoria contigua*) (Correa). *Sphaerophoria sulphuripes* (Correa). Calligrapher Fly (*Toxomerus marginatus*) (Brooks, 2020). *Toxomerus occidentalis* (Brooks, 2020).

Grindelia nana. **Idaho Gumweed**. June-September.

Bees: Apidae: Sunflower Bee (*Svastra obliqua expurgata*).

Grindelia stricta. **Coastal Gumweed**. May-October.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*). *Melissodes velutinus* (M & N) (fq).

UC Bee Lab garden study found especially Megachilidae (leafcutter and mason bees), Long-horned bees (*Melissodes*), honeybees, Halictidae and bumblebees.

Grindelia stricta var. *platyphylla*. *Grindelia platyphylla*. *Grindelia latifolia*. **Oregon Gumweed**. May-October.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Melissodes moorei*. Pale-marked Longhorn Bee (*Melissodes pallidisignatus*) – (M & N) (fq). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N) (fq). *Hylaeus maritimus* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Lasioglossum cooleyi* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*). Western Leaf-cutter (*Megachile perihirta*). *Osmia integra*.

Gutierrezia sp.

Andrenidae: *Perdita scitula*. Apidae: *Anthophora petrophila*. Crotch's Bumblebee (*Bombus crotchii*) (M & N). *Melissodes appressus* (M & N) (fq). *Melissodes lutulentus* – (M & N) (fq). *Melissodes paululus*. Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N). *Colletes tectiventris*. Megachilidae: *Ashmeadiella bigeloviae*. Big-cheeked Mason Bee (*Ashmeadiella buconis*).

Gutierrezia californica. **San Joaquin Snakeweed**. May-October.

Bees: Andrenidae: *Andrena isocomae* – (M & N) (fq). *Perdita ciliata* (M & N). *Perdita hirticeps* (M & N) (fq). *Perdita interserta*. *Perdita scitula* (M & N). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Urbane Digger (*Anthophora urbana*) (M & N). *Diadasia envata*. *Melissodes appressus* – (M & N) (fq). *Melissodes bimatrix*. *Melissodes hurdi*. Lupine Long-horned Bee (*Melissodes lupinus*) --.(M & N) (fq). *Melissodes lustrus*. *Melissodes melanurus*. Small Long-horned Bee (*Melissodes microstictus*). *Melissodes paululus*. *Melissodes personatellus* – (M & N). (fq). Robust Long-horned Bee (*Melissodes robustior*). *Melissodes sternsi*. *Melissodes tepida timberlakei*. *Melissodes tessellatus* *Melissodes velutinus*. *Nomada formula* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus*) (M & N) (fq). Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dieunomia nevadensis* (M & N) (fq). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum trizonatum* (M & N). Megachilidae: *Anthidium edwardsii*. *Anthidium maculosum*. Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Ashmeadiella cactorum*. *Ashmeadiella californica*. *Dianthidium parvum*. *Heriades cressoni*. Common Little Leaf-cutter Bee (*Megachile brevis*). Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile nevadensis*. Western Leafcutter (*Megachile perihirta*). *Megachile texana*.

Haplopappus sp. Former designation that is now assigned to *Ericameria*, *Hazardia*, *Isocoma*, *Tonestus*, thus, rather vague.

Bees: Andrenidae: *Andrena isocomae* (M & N) (fq). *Andrena submoesta* (M & N). *Perdita ciliata* (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Melissodes bimatrix* (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes lustrus* (M & N) (fq). *Melissodes melanurus* (M & N) (fq). Small Long-horned Bee (*Melissodes microstictus*) (M & N) (fq). Pale-marked Long-horned Bee (*Melissodes pallidesignata*) (M & N) (fq). *Melissodes paululus* (M & N) (fq). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N) (fq). Ochraceus Cellophane Bee (*Colletes ochraceus*) (M & N) (fq). Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae:

Lasioglossum tegulariforme (M & N).

Helenium sp. **Sneezeweed**.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Helenium bigelovii. **Bigelow's Sneezeweed**. June-September.

Bees: Apidae: Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*). Small Long-horned Bee (*Melissodes microstictus*) – (M & N) (fq). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N) (fq). *Lasioglossum nevadense* (M & N). *Lasioglossum trizonatum* (M & N). Megachilidae: *Dianthidium ulkei*. *Heriades cressoni*. Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile gentilis*. *Megachile montivaga*. Western Leafcutter (*Megachile perihirta*). *Megachile texana*. Colorado Osmia (*Osmia coloradensis*).

Helenium puberulum. **Rosilla**. June-August.

Bees: Andrenidae: Prickly Ceratina (*Ceratina acantha*) (fq) (Moldenke, 1971). Dwarf Ceratina (*Ceratina nanula*) (M & N). Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N).

Five bees and Field Crescent butterfly. (Moldenke, 1971).

UC Bee Lab garden observations find it attracts Leaf Cutter and Mason Bees (Megachilidae) and Long-horned Bees (*Melissodes*) – with the longer-horned males sleeping in the flower heads.

Helianthella californica. **California Helianthella**. April-June.

Bees: Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N).

Helianthella castanea. **Mount Diablo Helianthella**. May-June.

Bees: Apidae: California Cuckoo Bee (*Xeromelecta californica*) (M & N). Megachilidae: *Osmia montana*.

Helianthemum suffrutescens. *Helianthemum scoparium*. **Bisbee Peak Rushrose**. April-June.

Bees: Apidae: Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: *Halictus tripartitus* (M & N).

Helianthus sp. **Sunflowers**.

Bees: Andrenidae: *Andrena helianthi* – (M & N) (fq) “Oligolectic on Helianthus and related compositae.” Orange-banded *Andrena* (*Andrena prunorum*). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). *Anthophora exigua*. Bear-like Digger Bee (*Anthophora ursina*). California Bumblebee (*Bombus californicus*) (M & N). Crotch’s Bumblebee (*Bombus crotchii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*). *Ceratina micheneri* (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). Sunflower Bee (*Diadasia enavata*) -- (M & N) (fq). *Diadasia rinconis*. Edwards’s Long-horned Bee (*Eucera edwardsii*). Agile Long-horned Bee (*Melissodes agilis*) (M & N). (fq). *Melissodes bimatrix*. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes lustrus*. *Melissodes lutulentus*. Small Long-horned Bee (*Melissodes microstictus*). *Melissodes personatellus*. Robust Long-horned Bee (*Melissodes robustior*) (M & N). *Melissodes tepida timberlakei* (M & N). Sunflower Bee (*Svastra obliqua expurgata*) (M & N) (fq). Sunflower Cuckoo Nomad Bee (*Triepeolus helianthi*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: *Colletes phaceliae*. Spine-shouldered Cellophane Bee (*Colletes simulans*). Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus* (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N) (fq). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum kincaidii* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Titus’ *Lasioglossum* (*Lasioglossum titusi*) (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Megachilidae: Flat-tailed Leafcutter Bee (*Megachile mendica*). Golden-tailed Leafcutter (*Megachile relativa*). *Osmia granulosa*.

Helianthus annuus. **Sunflower**. June-August.

Bees: Andrenidae: *Andrena helianthi* – (M & N) (fq). Apidae: Honeybee (*Apis mellifera*) sn cp fq. California Digger (*Anthophora californica*). Short Sun-Digger (*Anthophora curta*). Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Great Northern Bumblebee (*Bombus fervidus*). Yellow-faced Bumblebee (*Bombus flavifrons*). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*). Van Dyke’s Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Diadasia consociata*. Sunflower Bee (*Diadasia enavata*) – (M & N) (fq). *Diadasia rinconis*. Agile Long-horned Bee (*Melissodes agilis*) – (M & N) (fq). *Melissodes appressus*. Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes paululus*. Robust Long-horned Bee (*Melissodes robustior*) – (M & N) (fq). *Melissodes sternsi*. *Melissodes tepida timberlackei*. *Melissodes tessellatus*. Squash Bee (*Peponapis pruinosa*). Sunflower Bee (*Svastra obliqua expurgata*) sn cp fq. Concave Longhorn-Cuckoo (*Triepeolus concavus*) (M & N). Sunflower Cuckoo Nomad Bee (*Triepeolus helianthi*). *Triepeolus subnitens*). California Cuckoo Bee (*Xeromelecta californica*). Valley Carpenter Bee (*Xylocopa varipuncta*). Halictidae: *Agapostemon femoratus*. Ultra Green Sweat Bee (*Agapostemon texanus*). Bicolored Striped Sweat Bee (*Agapostemon virescens*). *Halictus ligatus* sn cp fq. Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*. *Lasioglossum incompletum*. Megachilidae: *Anthidium maculosum*. Red-footed Cuckoo Leafcutter (*Coelioxys rufitarsis*). Apical Leafcutter Bee (*Megachile apicalis*). Common Little Leafcutter Bee (*Megachile brevis*). Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile gentilis*.

Megachile inimica. Megachile montivaga. Megachile nevadensis. Western Leaf-cutter (Megachile perihirta). Megachile texana. Texas Osmia (Osmia texana).

UC Bee Lab garden study found especially Megachilidae (leafcutter and mason bees), long-horned bees (Melissodes), honeybees and bumblebees; strongly recommends dead-heading (promptly removing spent flowers to generate more flower production).

Flies: Thick-legged Hoverfly (Syrirta pipiens) (Hilty).

Helianthus boldanderi. **Bolander's Sunflower**. June-October.

Bees: Apidae: Agile Long-horned Bee (Melissodes agilis) – (M & N) (fq). Robust Long-horned Bee (Melissodes robustior). Melissodes tepida timberlakei. Melissodes tessellatus. Melissodes velutinus. Sunflower Bee (Svastra obliqua expurgata) – (M & N) (fq). Sunflower Cuckoo Nomad Bee (Triepeolus helianthi) (M & N).

Helianthus californicus. **California Sunflower**. July-September.

Helianthus exilis. **Serpentine Sunflower**. June-November.

Helianthus gracilentus. **Slender Sunflower**. May-September.

Bees: Apidae: Short Sun-Digger (Anthophora curta) (fq). Urbane Digger (Anthophora urbana) (M & N) (fq). Anthophorula nitens (M & N). Prickly Ceratina (Ceratina acantha) (M & N). Arizona Ceratina (Ceratina arizonensis) (M & N). Ceratina punctigena (M & N). Ceratina tejonensis (M & N). Sunflower Bee (Diadasia enavata) – (M & N) (fq). Diadasia laticauda. Lupine Long-horned Bee (Melissodes lupinus) – (M & N) (fq). Robust Long-horned Bee (Melissodes robustior) – (M & N) (fq). Melissodes velutinus (M & N). Sunflower Bee (Svastra obliqua expurgata) (M & N). California Cuckoo Bee (Xeromelecta californica) (M & N). Halictidae: Agapostemon femoratus (M & N). Ultra Green Sweat Bee (Agapostemon texanus) (M & N). Wide-striped Sweat Bee (Halictus farinosus) (M & N). Lasioglossum mellipes (M & N). Megachilidae: Ashmeadiella californica. Megachile coquilletti. Horn-faced Leafcutter Bee (Megachile fidelis). Megachile montivaga. Megachile peihirta.

+Greenleaf, S., & Kremen, C. (2006). Wild Bees Enhance Honey Bees' Pollination of Hybrid Sunflower. *Proceedings of the National Academy of Sciences of the United States of America*, 103(37), 13890-13895. Retrieved April 28, 2020, from www.jstor.org/stable/30050351

Helianthus nuttallii. Nuttall's Sunflower. July-August.

Bees: Apidae: Eucera actiosa (M & N).

Heliotropium sp. Likely the following species often meant.

Bees: Apidae: Anthophora flavocincta (M & N) "Oligolectic on Heliotropium." Sunflower Bee

(*Svastra obliqua expurgata*). Halictidae: *Agapostemon femoratus* (M & N). Megachilidae: Occidental Cuckoo Carder Bee (*Stelis occidentalis*).

Heliotropium curassavicum. *Heliotropium oculatum*. **Salt Heliotrope**. May-June.

Bees: Andrenidae: *Calliopsis hesperia* (M & N) (fq). Apidae: California Digger (*Anthophora californica*). Short Sun-digger (*Anthophora curta*). *Anthophora flavocincta* – (M & N) (fq). Urbane Digger (*Anthophora urbana*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). *Diadasia consociata*. Ochraceous Chimney Bee (*Diadasia ochracea*). *Melissodes appressus* (M & N). *Melissodes minisculus* -- (M & N) (fq). *Melissodes sternsi*. *Melissodes tepida timberlakei*. Sunflower Bee (*Svastra obliqua expurgata*) (M & N). *Zacospia maculata* (M & N). Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus gaudialis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N) (fq). *Lasioglossum kincaidii* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum ovaliceps* (M & N). *Lasioglossum tegulariforme* (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Megachilidae: *Anthidium edwardsii*. *Ashmeadiella aridula*. *Ashmeadiella bigeloviae*. Common Little Leaf-cutter Bee (*Megachile brevis*).

For bee visitation observations, this species was the 23rd most popular in 2011 and 25th^h most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as generally uncommon.

Heliotropium curassavicum var. *oculatum*. *Heliotropium oculatum*. **Alkali Heliotrope**. May-June.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). *Melissodes appressus*. *Melissodes paululus*. *Melissodes velutinus*.

Hemizonella minima. *Madia minima*. **Opposite-leaved Tarweed**. April-July.

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*). *Andrena chalybioides*. Greenish Burrowing Bee (*Andrena cuneilabris*). Small Green Miner Bee (*Andrena microchroa*).

Hemizonia sp. **Spikeweeds and others**. Many now assigned to *Centromadia* or *Deinandra*, others to *Calycadenia*, *Holocarpha*, and *Osmadenia*, rendering the designation vague.

Bees: Andrenidae: *Andrena chlorosoma* (M & N). *Andrena olivacea* (M & N). *Andrena sublayiae* (M & N) (fq). Apidae: Short Sun-Digger (*Anthophora curta*) (M & N) (fq). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Sunflower Bee (*Diadasia enavata*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Pale-marked Long-horned Bee (*Melissodes pallidisignata*) (M & N). *Melissodes sternsi* (M & N) (fq). California Cuckoo Bee (*Xeromelecta californica*) (M & N).

Halictidae: *Halictus ligatus* (M & N) (fq). *Lasioglossum incompletum* (M & N).

Hemizonia congesta. **Hayfield Tarweed**. April-December.

Bees: Apidae: Honeybee (*Apis mellifera*). Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*).

Hemizonia congesta ssp. *luzulifolia*. *Hemizonia luzulaefolia*. **Hayfield Tarweed**. August-October.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (M & N). Least Cellophane-cuckoo Bee (*Epeolus minimus*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) – (M & N) (fq). California Longhorn-Cuckoo (*Triepeolus californicus*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N) (fq). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N) (fq).

Heracleum maximum. *Heracleum lanatum*. **Cow Parsnip**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena fragilis*. *Andrena frigida*. Miserable *Andrena* (*Andrena miserabilis*). *Andrena orthocarpi*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena thaspi*. Apidae: Honeybee (*Apis mellifera*) sn cp fq. Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*). Mesilla Masked Bee (*Hylaeus mesillae*) sn fq. Modest Masked Bee (*Hylaeus modestus*) sn fq. *Hylaeus nunenmacheri* (Oregon Bee Project) (fq). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). *Lasioglossum allonotus* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum olympiae* (M & N). Megachilidae: *Anthidium atrifrons*. *Megachile gemula*.

Flies: Calliphoridae: *Calliphora* sp. (Brooks, 2020; there is an iNaturalist report of *Calliphora vicina* from San Francisco). Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Hilty). European Drone Fly (*Eristalis arbustorum*) (Hilty). Thick-legged Hoverfly (*Syritta pipiens*) (Hilty). *Syrphus ribesii* (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Wasps: *Vespula* sp. (Brooks, 2020).

Gets various wasps, flies, beetles, especially, butterflies, and other insects.

Hesperolinon sp. Formerly assigned to *Linum*.

Hesperolinon adenophyllum. *Linum adenophyllum*. **Glandular Dwarf Flax**. May-August.

Hesperolinon bicarpellatum. *Linum bicarpellatum*. **Twocarpel Dwarf Flax**. May-July.

Hesperolinon breweri. *Linum breweri*. **Brewer's Dwarf Flax**. May-July.

Hesperolinon californicum. *Linum californicum*. **California Dwarf Flax**. May-June.

Hesperolinon clevelandii. *Linum clevelandii*. **Allen Springs Dwarf Flax**. May-July.

Hesperolinon congestum. *Linum congestum*. **Marin Dwarf Flax**. April-July.

Hesperolinon disjunctum. **Coast Range Dwarf Flax**. April-July.

Hesperolinon drymarioides. *Linum drymarioides*. **Drymary Dwarf Flax**. May-August.

Hesperolinon micranthum. **Small Dwarf Flax**. May-June.

Bees: Apidae: Arizona Ceratina (*Ceratina arizonensis*) (M & N).

Hesperolinon sharsmithiae. **Sharsmith's Western Flax**. May-July.

Hesperolinon spergulinum. *Linum spergulinum*. **Slender Dwarf Flax**. May-August.

Hesperomecon linearis. *Meconella linearis*. **Narrowleaf Queen Poppy**. March-June.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Heteromeles arbutifolia. **Toyon**. June-August.

Andrenidae: *Andrena w-scripta* (M & N) (fq). *Perdita distropica* (M & N). Apidae: Honeybee (*Apis mellifera*) (Brooks, 2020). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*). Dwarf Ceratina (*Ceratina nanula*). California Mountain Digger (*Habropoda depressa*). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Halictus tripartitus*. *Lasioglossum incompletum* (M & N). Nevada Sweat Bee (*Lasioglossum nevadense*). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Sphecodes* sp. #5 (M & N). *Sphecodes* sp. #54 (M & N). *Sphecodes* sp. #55 (M & N). Megachilidae: *Heriades cressoni*. Elderberry Summer Mason Bee (*Hoplitis sambuci*). Blue Mason Bee (*Osmia cyanella*). *Osmia tristella*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon one year, rare in another year.

Flies: Syrphidae: Drone Fly (*Eristalis tenax*). *Scaeva* sp. (Brooks, 2020). *Sphecomyia vittata* (Correa).

Heterotheca sp. *Chrysopsis* sp.

Bees: Andrenidae: *Andrena columbiana*. Apidae: Small Long-horned Bee (*Melissodes microstictus*). Apidae: Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Ochraceous Chimney Bee (*Diadasia ochracea*). Megachilidae: Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Osmia penstemonis*.

Flies: Syrphidae: Calligrapher Fly (*Toxomerus marginatus*) (Correa). *Toxomerus occidentalis* (Correa).

Heterotheca grandiflora. *Heterotheca floribunda*. **Telegraph Weed**. All year.

Bees: Andrenidae: *Andrena citrinihirta* (M & N) (fq). *Andrena isocomae* (M & N) (fq). *Perdita ciliata*. *Perdita scitula*. Apidae: Short Sun-Digger (*Anthophora curta*). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Parthenogenic Ceratina (*Ceratina dallatorreana*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Sunflower Bee (*Diadasia enavata*). *Melissodes appressus* – (M & N) (fq). *Melissodes hurdi* (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes lustrus*. *Melissodes moorei*. *Melissodes paululus*. *Melissodes personatellus*. Robust Long-horned Bee (*Melissodes robustior*) – (M & N) (fq). *Nomada formula* (M & N). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*) Buckwheat Masked Bee (*Hylaeus polifolii*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus ligatus* (fq). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum kincaidii* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: *Anthidium maculosum*. *Ashmeadiella californica*. *Dianthidium parvum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile gentilis*. *Megachile nevadensis*.

Flies: Syrphidae: Tufted Globetail (*Sphaerophoria contigua*) (Correa). *Sphaerophoria sulphuripes* (Correa).

Heterotheca oregona. **Oregon Goldenaster**. July-October.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*). Honeybee (*Apis mellifera*). Colletidae: *Hylaeus conspicuus*. Halictidae: *Dieunomia nevadensis*. *Halictus ligatus*. Megachilidae: *Dianthidium pudicum*. *Dianthidium ulkei*. *Megachile inimica*.

Heterotheca sessiliflora. *Crysopsis sessiliflora*. **Goldenaster**. March-December.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). Megachilidae: *Dianthidium ulkei*. *Megachile angelarum*. Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile gentilis*.

Flies: Bombyliidae: *Geron* sp. (Brooks, 2020). *Lepidanthrax* sp. (Brooks, 2020). Syrphidae: Drone Fly (*Eristalis tenax*) (Brooks, 2020). Calligrapher Fly (*Toxomerus marginatus*) (Brooks, 2020). *Toxomerus occidentalis* (Brooks, 2020).

Wasps: *Vespula* sp. (Brooks, 2020).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon.

Hieracium albiflorum. **White Hawkweed**. May-June.

Bees: Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N).

Molenke got 1 bee species on its flowers; The bupestrid beetle *Anthaxia californica* was rated as very abundant.

Holocarpha heermanii. *Hemizonia heermannii*. **Heermann's Tarweed**. March-November.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Sunflower Bee (*Diadasia enavata*). *Melissodes lupinus*, *Tetraloniella pomonae*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: *Halictus tripartitus*, *Lasioglossum incompletum*. *Lasioglossum titusi*. Megachilidae: Horn-faced Leafcutter Bee (*Megachile fidelis*).

Holocarpha macradenia. *Hemizonia macradenia*. **Santa Cruz Tarplant**. June-October.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Holocarpha obconica. *Hemizonia obconica*. *Hemizonia vernalis*. **San Joaquin Tarweed**. April-November.

Holocarpha virgata. *Hemizonia virgata*. *Deinandra virgata*. *Deinandra heermannii*. **Narrow Tarplant**. March-November.

Bees: Andrenidae: *Andrena cristata*. Apidae: Honeybee (*Apis mellifera*). Dwarf Ceratina (*Ceratina nanula*) *Ceratina sequoiae*. Robust Long-horned Bee (*Melissodes robustior*). *Melissodes sternsi*. Halictidae: *Halictus ligatus*. *Halictus tripartitus*. *Lasioglossum titusi*. Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*).

Holodiscus sp.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*).

Holodiscus discolor. *Holodiscus boursieri*. *Holodiscus dumosus*. **Oceanspray**. May-July.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*). *Andrena w-scripta* (M & N) (fq). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly Ceratina (*Ceratina acantha*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Halictidae: Wide-striped Sweat Bee (*Halictus*

farinosus) (M & N). Halictus tripartitus (M & N). Megachilidae: Osmia malina.

Moldenke (1971) got 48 insect species, many beetles, several bees; Oceanspray Fairy Moth (*Adela septentrionella*) common.

Horkelia sp.

Bees: Andrenidae: *Andrena ceanothifloris* (M & N). *Andrena ceanothifloris cretata*. Copper-tinted Miner Bee (*Andrena cupreotincta*). *Andrena w-scripta* (M & N). Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: *Anthidium atrifrons*. Pacific Wool-carder Bee (*Anthidium palliventre*). Flat-tailed Leafcutter Bee (*Megachile mendica*). *Protosmia rubifloris*.

Horkelia bolanderi. *Potentilla bolanderi*. **Bolander's Horkelia**. June-August.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N) (fq). Halictidae: *Halictus tripartitus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Horkelia californica. **California Horkelia**. April-July.

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*) (Brooks, 2020). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Brooks, 2020).

Horkelia californica var. *elata*. *Horkelia glandulosa*. *Potentilla californica*. **California Horkelia**. April-June.

Bees: Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

Horkelia cuneata. *Potentilla lindleyi*. *Potentilla kelloggii* var. *cuneata*. **Wedgeleaf Horkelia**. February-July.

Horkelia marinensis. *Potentilla kelloggi* var. *marinensis*. **Point Reyes Horkelia**. May-September.

Horkelia tenuiloba, *Potentilla micheneri*. **Santa Rosa Horkelia**. May-July.

Hosackia crassifolia. *Lotus crassifolius*. **Broadleaved Lotus**. May-July.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). Megachilidae: *Hoplitis hypocrita*. *Megachile angelarum*. *Osmia albolateralis*. *Osmia cara*. Blue Mason Bee (*Osmia cyanella*). Dense-haired Mason Bee (*Osmia densa*). *Osmia malina*. *Osmia physariae*. *Osmia visenda*.

Hosackia gracilis. *Lotus formosissimus*. **Harlequin Lotus**. May-July.

Hosackia oblongifolia. Lotus oblongifolius. **Narrow-leaved Lotus**. June-August.

Bees: Megachilidae: Anthidium illustre. Anthidium utahense. Ashmeadiella timberlakei. Osmia albolateralis. Dense-haired Mason Bee (Osmia densa). Osmia physariae.

Hulsea heterochroma. **Redray Alpinegold**. May-August.

Hydrophyllum sp.

Bees: Apidae: Ashy Digger Bee (Habropoda cineraria). Halictidae: Halictus virgatellus.

Hydrophyllum occidentale. **California Waterleaf**. May-June.

Bees: Andrenidae: Andrena transnigra.

Hypericum sp. **St John's Wort**.

Bees: Apidae: Crotch's Bumblebee (Bombus crotchii) (M & N). Great Northern Bumblebee (Bombus fervidus) (M & N). Van Dyke's Bumblebee (Bombus vandykei) (M & N). Yellow-faced Bumblebee (Bombus vosnesenskii) (M & N).

Hypericum anagalloides. **Tinker's Penny**. June-July.

Hypericum concinnum. **Goldwire**. April-July.

Hypericum scouleri. **Scouler's St. John's Wort**. June-September.

Iris sp. **Iris**.

Bees: Apidae: Great Northern Bumblebee (Bombus fervidus) (M & N). Indiscriminate Cuckoo Bumblebee (Bombus insularis) (M & N). Western Bumblebee (Bombus occidentalis) (M & N). Yellow-faced Bumblebee (Bombus vosnesenskii) (M & N).

Iris douglasiana. **Douglas Iris**. February-June.

Bees: Apidae: Bumblebee Digger (Anthophora bomboides). Black-notched Bumblebee (Bombus bifarius). California Bumblebee (Bombus californicus) (M & N). Western Bumblebee (Bombus occidentalis). Yellow-faced Bumblebee (Bombus vosnesenskii). Silver Digger (Habropoda miserabilis) (fq). Most visits before noon.

Uno, G. (1982). The Influence of Pollinators on the Breeding System of *Iris douglasiana*. *The American Midland Naturalist*, 108(1), 149-158. doi:10.2307/2425304

Iris fernaldii. **Fernald's Iris**. April.

Iris longipetala. **Coast Iris**. March-May.

Iris macrosiphon. **Ground Iris**. March-May.

Iris missouriensis. **Western Blue Flag**. March-May.

Bees: Apidae: Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*).

Isocoma sp.

Bees: Apidae: Sonoran Bumblebee (*Bombus sonorus*) (M & N). Ochraceous Chimney Bee (*Diadasia ochracea*). *Melissodes lustrus*. Colletidae: Spine-shouldered Cellophane Bee (*Colletes simulans*). *Colletes tectiventris*.

Isocoma arguta. *Haplopappus venetus argutus*. **Carquinez Goldenbush**. August-December.

Isocoma menziesii. *Isocoma veneta*. *Haplopappus venetus*. **Menzies' Goldenbush**. April-November.

Bees: Andrenidae: *Andrena citrinihirta*. *Andrena isocomae*. Apidae: California Bumblebee (*Bombus californicus*). Colletidae: *Colletes angelicus* (M & N). Ochraceous Cellophane Bee (*Colletes ochraceus*). Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Megachilidae: Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Ashmeadiella californica*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile gentilis*. *Megachile montivaga*. *Megachile nevadensis*. Western Leafcutter (*Megachile perihirta*).

Isocoma menziesii var. *vernonioides*. *Isocoma vernonioides*. *Haplopappus venetus* ssp. *veronoides*. *Haplopappus vernonioides*. **Coastal Goldenbush**. April-November.

Bees: Andrenidae: *Andrena isocomae* (M & N) (fq) Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Melissodes appressus* – (M & N) (fq). *Melissodes lustrus*. Pale-marked Long-horned Bee (*Melissodes pallidesignatus*) – (M & N) (fq). *Melissodes paululus* – (M & N) (fq). *Melissodes personatellus*. Robust Long-horned Bee (*Melissodes robustior*). Sunflower Bee (*Svastra obliqua expurgata*) – (M & N) (fq). Sunflower Cuckoo Nomad Bee (*Triepeolus helianthi*) (M & N). *Zacosmia maculata* (M & N). Colletidae: *Colletes angelicus* (M & N). Glittering Cellophane Bee (*Colletes fulgidus*) (M & N) (fq). Hyaline Cellophane Bee (*Colletes hyalinus gaudialis*) (M & N) (fq). Ochraceous Cellophane Bee (*Colletes ochraceus*). Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus ligatus* (M & N) (fq). *Lasioglossum incompletum* (M & N).

Jaumea carnosa. *Coinogyne carnosa*. **Marsh Jaumea**. May-July.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N).

Juglans hindsii. **Northern California Black Walnut**. April-May.

Bees: California Mountain Digger (*Habropoda depressa*).

Juncus sp. **Rush**.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (Laine).

Keckiella antirrhinioides. *Penstemon antirrhinioides*. **Chaparral Beardtongue**. April-May. Recorded, rather disjunctly from the rest of its range, in Jasper Ridge Biological Preserve. A late addition to this compilation.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Eucera angustifrons* (M & N). Valley Carpenter Bee (*Xylocopa varipuncta*) (M & N).

Keckiella breviflora. *Penstemon breviflorus*. **Bush Beardtongue**. April-July.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). California Carpenter Bee (*Xylocopa californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Megachilidae: *Anthidium mormonum*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years.

Keckiella corymbosa. *Penstemon corymbosus*. **Red Beardtongue**. **Redwood Keckiella**. July-September.

Keckiella lemmonii. *Penstemon lemmonii*. **Bush Beardtongue**. July-August.

Lagophylla dichotoma. **Forked Hareleaf**. April-June.

Lagophylla minor. **Lesser Hareleaf**. April-June.

Lagophylla ramosissima. **Common Hareleaf**. April-October.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Lasthenia sp. *Baeria*. **Goldfields**.

Hall, H. (1915). Notes on *Baeria* and *Lasthenia*. *Bulletin of the Torrey Botanical Club*, 42(3), 111-116. doi:10.2307/2479778 is useful for sorting it out, as the alphabetical section of Calflora.

Bees: Andrenidae: *Andrena anisochlora* (M & N). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena baeriae*. *Andrena blennospermatis*. *Andrena buccata* (M & N). Caerulean Miner Bee (*Andrena caerulea*). *Andrena cercocarpi*. *Andrena chalyboides* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) – (M & N) (fq) “Polylectic with emphasis on ...*Lasthenia* ...”. *Andrena chlorura*. Greenish Burrowing Bee (*Andrena cuneilabris*). *Andrena dissimulans* fq. *Andrena duboisi* (M & N) (fq) “Oligolectic on *Lasthenia* & *Layia*.” *Andrena hermosa* – (M & N) “Apparently specific to *Lasthenia*.” *Andrena layiae* – (M & N) (fq) “Oligolectic on *Lasthenia*.”. Small Green Miner Bee (*Andrena microchlora*) (M & N). *Andrena misella*. *Andrena nigroclypeata*. *Andrena orthocarpi* (fq). Pale-faced Miner Bee (*Andrena pallidifovea*) (fq). *Andrena pensilis* (fq). *Andrena penutiani* (M & N). Piper’s Miner Bee (*Andrena piperi*) – (M & N) (fq). *Andrena puthua* – (M & N) (fq) “Oligolectic on *Lasthenia*.”. Willow Mining Bee (*Andrena salicifloris*) (M & N). *Andrena santaclarae*. *Andrena suavis*. *Andrena subchalybea* (M & N). *Andrena submoesta* – (M & N) (fq). *Andrena subtrita*. *Andrena viridissima*. *Calliopsis obscurella* (M & N). *Panurginus atriceps* (M & N). *Panurginus gracilis*. *Panurginus melanocephalus* (M & N). *Panurginus nigrellus*. Apidae: Edward’s Bumblebee (*Bombus edwardsii*) (M & N). *Eucera actiosa* (M & N). *Nomada obscurella*. Colletidae: *Hylaeus conspicuus* (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). *Dufourea californica* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Osmia glauca*.

Lasthenia aristata. A former name for the section of the genus which includes *Lasthenia coronaria*, *Lasthenia maritima*, and *Lasthenia minor*, *Ptilomeris*. **Goldfields**. Didn’t figure this out until late in the study, these records incomplete.

Bees: Halictidae: *Lasioglossum nigrescens* (M & N). *Lasioglossum tegulariforme* (M & N).

Lasthenia burkei. *Baeria burkei*. **Burke’s Goldfields**. April-June.

Lasthenia californica. *Lasthenia chrysostoma*. *Baeria chrysostoma*. **Goldfields**. February-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena baeriae*. Caerulean Miner Bee (*Andrena caerulea*) (M & N). *Andrena chalyboides* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorosoma* (M & N). *Andrena chlorura*. Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N). *Andrena dissimulans*. *Andrena duboisi* – (M & N) (fq). *Andrena escondida*. *Andrena hypoleuca*. *Andrena lativentris*. *Andrena leucomystax*. *Andrena layiae* (M & N). Small Green Miner Bee (*Andrena microchlora*) (M & N). *Andrena orthocarpi* (M & N) (fq). Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena pensilis* (fq). Piper’s Miner Bee (*Andrena piperi*) (M & N) (fq). Clover *Andrena* (*Andrena plana*). *Andrena puthua* (M & N) (fq). *Andrena suavis* (M & N). *Andrena subchalybea* (M & N). *Andrena submoesta* (M & N) (fq). *Andrena w-scripta* (M & N). *Panurginus melanocephalus* (M & N). *Panurginus nigrellus* (M & N). *Perdita nitens*. Apidae: Pacific Digger (*Anthophora pacifica*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Eucera actiosa* (M & N). *Eucera lunata* (M & N). Striped Long-

horned Bee (*Eucera virgata*) (M & N). *Nomada* spp. (M & N). Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*), Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: *Dufourea sandhouseae* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum olympiae* (M & N). *Lasioglossum orthocarpi* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N) (fq). *Sphecodes* #53 (M & N). Megachilidae: *Chelostoma minutum*. *Protosmia rubifloris*.

For bee visitation observations, this species was the 16th most popular in 2011 and 12th most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as common one year, uncommon in three years, rare in one year.

Lasthenia californica ssp. *macrantha*. *Lasthenia macrantha*. **Perennial Goldfields**. Jan-Nov.

Bees: Andrenidae: *Andrena chalybaea* (M & N). Halictidae: *Lasioglossum nigrescens* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N).

Lasthenia chrysantha. *Crockeria chrysantha*. **Alkalisink Goldfields**. February-June.

Lasthenia conjugens. *Baeria fremontii*. **Contra Costa Goldfields**. March-June.

Lasthenia ferrisiae. **Alkali Goldfields**. February-May.

Lasthenia fremontii. *Baeria fremontii*. **Vernal Pool Goldfields**. April-May.

Lasthenia glaberrima. *Baeria aristata*. **Smooth Goldfields**. April-May.

Bees: Andrenidae: *Andrena dissimulans*.

Lasthenia glabrata. **Yellowray Goldfields**. February-June.

Bees: Andrenidae: *Andrena orthocarpi*.

Lasthenia gracilis. **Needle Goldfields**. February-June.

Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena baeriae*. *Andrena dissimulans*. *Andrena lativentris*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena puthua* (M & N) (fq). *Andrena submoesta* (M & N) (fq). Apidae: *Eucera actiosa* (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Halictus ligatus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N).

Lasthenia leptalea. *Baeria leptalea*. **Salinas Valley Goldfields**. February-April.

Lasthenia maritima. *Baeria maritima*. **Seaside Goldfields**. May-July.

Lasthenia microglossa. *Baeria microglossa*. **Smallray Goldfields**. March-May.

Lasthenia minor. *Baeria uliginosa* or *Baeria minor*; *Baeria tenella* former name of an ecologic form. Coastal Goldfields. **Coastal Goldfields**. March-June.

Bees: Andrenidae: *Andrena dissimulans*. *Andrena duboisi*. *Andrena hermosa*. *Andrena leucomystax* (to “*Baeria tenella*”). *Andrena layiae* (M & N) (fq). *Andrena puthua* (M & N) (fq). *Andrena submoesta* (M & N) (fq). Subtle Miner Bee (*Andrena subtilis*) (M & N).

Lasthenia platycarpha. *Baeria platycarpha*. **Alkali Goldfields**. March-April.

Lathyrus sp. **Pea**.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch’s Bumblebee (*Bombus crotchii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Sonoran Bumblebee (*Bombus sonorinus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Edward’s Long-horned Bee (*Eucera edwardsii*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Megachilidae: Dense-haired Mason Bee (*Osmia densa*). *Osmia malina*. *Protosmia rubifloris*.

Lathyrus japonicus. **Sea Pea**. May-August.

Bees: Andrenidae: *Andrena forbesii*. Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*).

Lathyrus jepsonii. **Delta Tule Pea**. May-July. There is a subspecies *californicus*, which I suppose is what is meant by “*Lathyrus californicus*”.

Bees: Apidae: Bumblebee (*Bombus* sp.). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: *Anthidium illustre*.

Lathyrus littoralis. **Beach Pea**. March-May.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Silver Digger (*Habropoda miserabilis*). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventris*).

Lathyrus palustris. **Marsh Pea**. March-August.

Lathyrus polyphyllus. **Oregon Pea**. April-May.

Lathyrus sulphureus. **Sulphur Pea**. March-June.

Bees: Apidae: Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Lathyrus torreyi. **Redwood Pea**. April-July.

Apidae: Fog-belt Bumblebee. (Moldenke).

Lathyrus vestitus. **Pacific Pea**. January-May.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Layia sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena chalyboides* (M & N). *Andrena duboisi* (M & N) (fq) "Oligolectic on *Lasthenia* & *Layia*." *Andrena escondida*. *Andrena layiae* (M & N). *Andrena pensilis*. *Andrena subchalybea* (M & N). *Andrena sublayiae* (M & N) (fq). *Andrena submoesta* (M & N). *Calliopsis fracta*. *Calliopsis obscurella*. Apidae: Edward's Digger (*Anthophora edwardsii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). *Eucera actiosa* (M & N). Colletidae: *Colletes californicus* (M & N). Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus ligatus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Osmia marginipennis*.

Layia carnosa. **Beach Layia**. March-July.

Bees: Andrenidae: Sandpit Mining Bee (*Andrena barbilabris*) (M & N).

Layia chrysanthemoides. **Smooth Tidy Tips**. March-June.

Bees: Andrenidae: *Andrena baeriae*. *Andrena chlorosoma* (M & N). *Andrena compositarum*. *Andrena dissona*. *Andrena duboisi*. *Andrena escondida*. *Andrena lativentris*. *Andrena leucomystax*. *Andrena subchalybea* (M & N) (fq).

Layia fremontii. **Fremont's Tidy Tips**. March-May.

Layia gaillardiioides. **Woodland Tidy Tips**. April-May.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Layia glandulosa. **White Layia**. March-June.

Bees: Andrenidae: *Andrena chalyboides* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena olivacea* (M & N). Pale-faced Miner Bee (*Andrena pallidifovea*). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). *Eucera actiosa* (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Halictidae: *Dufourea femorata* (M & N). *Halictus tripartitus* (M & N). Megachilidae: *Hoplitis sambuci*.

Layia heterotricha. **Paleyellow Tidytip**. March-June.

Layia hieracioides. **Tall Tidytip**. April-July.

Bees: Halictidae: *Halictus tripartitus* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Layia platyglossa. *Layia elegans*. **Coastal Tidytip**. February-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena bucculenta* (M & N). *Andrena cercocarpi*. *Andrena chlorosoma*. *Andrena duboisi* (M & N) (fq). *Andrena lativentris*. *Andrena limnanthis*. *Andrena nigra* (M & N). *Andrena nigroclypeata*. *Andrena orthocarpi*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena pensilis* (fq). Clover *Andrena* (*Andrena plana*). *Andrena pulvereana* (M & N). *Andrena puthua* (M & N). Lonely Miner (*Andrena sola*). *Andrena subchalybea* (M & N) (fq). *Andrena subhirta*. *Calliopsis obscurella* (M & N). *Perdita nitens*. *Perdita quadrisignata*. Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). *Clarkia Ceratina* (*Ceratina sequoiae*) (M & N). *Eucera actiosa* (M & N). *Nomada* sp. (M & N). Colletidae: *Hylaeus conspicuus*. Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea sandhouseae* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus*. *Lasioglossum incompletum* (M & N). *Lasioglossum olympiae* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: *Chelostoma californicum*. *Megachile subnigra*. *Osmia californica*. Colorado *Osmia* (*Osmia coloradensis*). *Osmia glauca*. *Osmia marginipennis*. *Osmia trevoris*. *Osmia sedula*. *Protosmia rubifloris*.

UC Bee Lab garden study found attraction at low levels, getting Long-horned Bees (*Melissodes*), Leaf Cutter and Mason Bees (*Megachilidae*), Bumblebees and honeybees.

Flies: Syrphidae: Tufted Globetail (*Sphaerophoria contigua*) (*Correa*) (fq). *Sphaerophoria sulphuripes* (*Correa*) (fq).

Layia septentrionalis. **Colusa Tidytip**. April-May.

Lepechinia calycina. **Pitcher Sage**. March-June.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly *Ceratina* (*Ceratina acantha*) (M & N). *Ceratina micheneri* (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). *Clarkia Ceratina* (*Ceratina*

sequoiae) (M & N). Ceratina tejonensis (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum olympiae* (M & N). Megachilidae: *Anthidium illustre*. *Ashmeadiella salviae*. *Protosmia rubifloris*.

Moldenke got 25 insects, 19 were bees, with Yellow-faced Bumblebee and several other bees very abundant.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years, rare in two years.

I've noticed large beetles.

Lepidium sp.

Bees: Andrenidae: Piper's Miner Bee (*Andrena piperi*). Orange-banded Andrena (*Andrena prunorum*). Topaz Miner Bee (*Andrena topazana*). Colletidae: Ochraceus Cellophane Bee (*Colletes ochraceus*). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Osmia nifoata*.

Lepidium acutidens. **Net Peppergrass**. February-April.

Lepidium densiflorum. **Common Pepperweed**. May-July.

Lepidium dictyotum. **Alkali Pepperweed**. March-May.

Lepidium lasiocarpum. **Shaggyfruit Pepperweed**. February-May.

Lepidium latipes. **Dwarf Peppergrass**. March-May.

Lepidium nitidum. **Shining Pepperweed**. **Tonguegrass**. February-May.

Lepidium oblongum. **Veiny Pepperweed**. March-August.

Lepidium oxycarpum. **Forked Pepperweed**. April-May.

Lepidium strictum. **Peppergrass**. March-May.

Lepidium virginicum. **Virginia Pepperweed**. January-July.

Bees: Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modesta*). Halictidae: *Halictus ligatus*. Sphecodes #53 (M & N).

Flies: Syrphidae: Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty) (fq).

Lepidospartum sp. **Scalebroom**. The following species is far more widespread, but there is another Californian species, not found in our area.

Bees: Apidae: Crotch's Bumblebee (*Bombus crotchii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Compact Cellophane-cuckoo Bee (*Epeolus compactus*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N).

Lepidospartum squamatum. **California Broomsage**. August-November.

Bees: Andrenidae: *Perdita interserta*. Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Honeybee (*Apis mellifera*) (Kummel). Sunflower Bee (*Svastra obliqua expurgata*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). *Zacosmia maculata* (M & N). Colletidae: Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile nevadensis*.

Some wasps including American Sand Wasp (*Bembix americana*).

Flowers get many insects including a great diversity of flies and wasps and good number of butterflies, some beetles; Kummel, out of 180 photographs of insects on its flowers, has three bee shots.

Leptosiphon acicularis. *Linanthus acicularis*. **Bristly Leptosiphon**. April-July.

Leptosiphon androsaceus. *Linanthus androsaceus*. **False Baby Stars**.

Bees: Andrenidae: Blue-and-Black Andrena (*Andrena nigrocaerulea*) – (M & N) (fq).

Grant & Grant observed *Eulonchus smaragdinus*, a cyrtid fly with a very long proboscis as a pollinator.

Flies: Syrphidae: *Dasysyrphus* sp. (Correa).

Leptosiphon bicolor. *Linanthus bicolor*. **True Babystars**. March-June.

Bees: *Calliopsis fracta*.

Leptosiphon bolanderi. *Linanthus bolanderi*. **Bolander's Linanthus**. March-July.

Leptosiphon ciliatus. *Linanthus ciliatus*. **Whiskerbrush**. April-June.

Leptosiphon croceus. *Linanthus croceus*. **Coast Yellow Leptosiphon**. April-May.

Leptosiphon filipes. Linanthus filipes. **Thread Linanthus**. March-June.

Leptosiphon grandiflorus. Linanthus grandiflorus. **Large Flowered Leptosiphon**. April-August.

Grant & Grant note bumblebees (cf. Yellow-faced Bumblebee (*Bombus vosnesenskii*)) as the main pollinators in observations near Point Reyes.

Leptosiphon harknessii. Linanthus harknessii. **Harkness' Flaxflower**. May-July.

Leptosiphon jepsonii. Linanthus jepsonii. **Jepson's Leptosiphon**. March-May.

Leptosiphon latisectus. Linanthus latisectus. **Broad Lobed Leptosiphon**. April-June.

Leptosiphon liniflorus. Linanthus liniflorus. **Narrowflower Flaxflower**. March-June.

Grant & Grant note various small bees. Apidae: *Ceratina* spp. Oreopasites sp. Halictidae: *Dufourea* sp. *Halictus* sp. Megachilidae: *Ashmeadiella* sp. *Chelostoma* sp. Also small, obscure flies, beetles, a wasp.

Leptosiphon parviflorus. Linanthus parviflorus. **Variable Linanthus**. March-June.

Bees: Andrenidae: Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) – (M & N) (fq). Clover *Andrena* (*Andrena plana*) (M & N).. Apidae: Prickly *Ceratina* (*Ceratina acantha*) (M & N). *Eucera actuosa* (M & N). Halictidae: *Dufourea tarsata* (M & N). *Halictus tripartitus* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Grant & Grant noted especially bee flies, especially *Bombylius lancifer*.

Leptosiphon pygmaeus. Linanthus pygmaeus. **Pygmy Linanthus**. April.

Leptosiphon roseaceus. Linanthus roseaceus. **Rose Leptosiphon**. April-July.

Leptosyne sp. Many formerly *Coreopsis*.

Bees: Andrenidae: *Calliopsis fracta*.

Leptosyne californica. *Coreopsis californica*. **California Coreopsis**. February-June.

Bees: Andrenidae: *Andrena olivacea* (M & N). Pale-faced Miner Bee (*Andrena pallidifovea*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena subchalybea* (M & N). Apidae: *Eucera actuosa* (M & N).

Leptosyne calliopsidea. *Coreopsis calliopsidea*. **Leafy Stemmed Coreopsis**. February-June.

Leptosyne douglasii. *Coreopsis douglasii*. **Douglas' Coreopsis**. March-May

Leptosyne hamiltonii. *Coreopsis hamiltonii*. **Mount Hamilton Coreopsis**. March-May.

Leptosyne stillmanii. *Coreopsis stillmanii*. **Stillman's Coreopsis**. March-May.

Hawked abroad as a butterfly garden plant.

Lessingia sp.

Bees: Andrenidae: *Perdita scitula* (M & N). Apidae: *Anthophora petrophila* (M & N). Urbane Digger (*Anthophora urbana*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: *Dufourea sandhouseae* (M & N). *Halictus tripartitus* (M & N). Megachilidae: *Dianthidium parvum*.

Lessingia arachnoidea. **Crystal Springs Lessingia**. June-October.

Lessingia germanorum. **San Francisco Lessingia**. June-November.

Bees: Andrenidae: Clover *Andrena* (*Andrena plana*) (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Anthophorula nitens* (M & N). *Hesperonomada annectens* (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Sphecodes* #54 (M & N).

Lessingia glandulifera. **Valley Lessingia**. August-October.

Bees: Andrenidae: *Perdita ciliata* (M & N). *Perdita scitula*. Apidae: *Anthophora rhodothorax* (M & N). *Melissodes appressus* – (M & N) (fq). *Melissodes hurdi* – (M & N) –(fq). *Melissodes melanurus*. – (M & N) (fq). Pale-marked Long-horned Bee (*Melissodes pallidisignata*).

Lessingia hololeuca. **Woollyhead Lessingia**. June-October.

Bees: Apidae: Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes sternsi* (M & N). Halictidae: *Halictus tripartitus* (M & N).

Lessingia lemmonii. **Lemmon's Lessingia** (Jepson eFlora considers it a segregate of *L. glandulifera*).

Lessingia micradenia. **Mount Tamalpais Lessingia**. June-November.

Lessingia nana. **Dwarf Lessingia**. June-October.

Lessingia nemaclada. **Threadstem Lessingia**. June-September.

Lessingia pectinata. May-October.

Lessingia ramulosa. Lessingia bicolor. **Sonoma Lessingia**. July-October.

Lessingia tenuis. **Spring Lessingia**. May-July.

Bees: Apidae: Anthophora exigua. Anthophora petrophila (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon.

Lilium pardalinum. **Leopard Lily**.

Apidae: Fog-belt Bumblebee (Moldenke).

Limnanthes sp. **Meadowfoam**.

Bees: Andrenidae: Andrena pulverea (M & N) (fq) “Oligolectic on Limnanthes.”

Limnanthes alba. **White Meadowfoam**. April-June.

Limnanthes alba ssp. alba. **Typical White Meadowfoam**. April-June.

Bees: Andrenidae: Andrena pulverea.

Limnanthes douglasii. **Meadowfoam**.

Bees: Andrenidae: Striped Mining Bee (Andrena angustitarsata). Andrena duboisi. Andrena leucomystax Andrena limnanthis. Andrena orthocarpi (M & N) (fq). Andrena pensilis (M & N). Andrena perimelas (M & N). Clover Andrena (Andrena plana). Andrena pulverea – (M & N) (fq). Andrena subchalybea (M & N). Andrena torulosa. Panurginus occidentalis fq – (M & N) (fq) “Oligolectic of Limnanthes douglasii.”. Apidae: Urbane Digger (Anthophora urbana). Black-notched Bumblebee (Bombus bifarius) (M & N). California Bumblebee (Bombus californicus) (M & N). Edward’s Bumblebee (Bombus edwardsii) (M & N). Western Bumblebee (Bombus occidentalis) (M & N). Lupine Long-horned Bee (Melissodes lupinus) (M & N). Halictidae: Peridot Bee (Augochlorella pomoniella). Halictus tripartitus. Lasioglossum nigrescens (M & N). Lasioglossum olympiae (M & N). Megachilidae: Osmia glauca. Blue Orchard Bee (Osmia lignaria). Tooth-bellied Mason Bee (Osmia odotogaster).

Limnanthes douglasii ssp. niva. **Snow White Meadowfoam**.

Bees: Andrena pulverea.

Limnanthes douglasii ssp. rosea. Limnanthes rosea. **Rosy Douglas’ Meadowfoam**.

Bees: Andrenidae: Andrena pulverea. Apidae: Honeybee (Apis mellifera). Halictidae: Lasioglossum sp., Osmia sp.

Runquist, R. (2013). Community Phenology and Its Consequences for Plant-Pollinator Interactions and Pollen Limitation in a Vernal Pool Plant. *International Journal of Plant Sciences*, 174(6), 853-862. doi:10.1086/670369

Limnanthes floccosa. **Woolly Meadowfoam**. April-June.

Limnanthes vinculans. **Sebastopol Meadowfoam**. April-May.

Limonium sp.

Bees: Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Limonium californicum. **Marsh Rosemary**. **California Sealavender**. June-September.

Linaria sp. Reassigned to *Nuttallanthus*.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Great Northern Bumblebee (*Bombus fervidus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Linum sp. **Flax**. Some native species now assigned to *Hesperolinon*.

Bees: Andrenidae: *Andrena chalyboides* (M & N). Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N).

Linum lewisii. **Blue Flax**. May-August.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*). Megachilidae: *Hoplitis fulgida*.

Lithophragma sp. **Woodland Star**.

Bees: Megachilidae: *Osmia physariae*.

Lithophragma affine. *Lithophragma affinis*. **Common Woodland Star**. March-May.

Bees: Andrenidae: Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) – (M & N) (fq). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Lithophragma bolanderi. **Hillstar**. February-July.

Lithophragma cymbalaria. **Mission Star**. March-May.

Lithophragma heterophyllum. *Lithophragma heterophylla*. **Hillside Woodland Star**. April-June.

Lithophragma parviflorum. **Prairie Star**. March-June.

Lomatium sp. **Biscuitroot**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena birtwelli*. Caerulean Miner Bee (*Andrena caerulea*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena forbesii*. *Andrena frigida*. *Andrena gordonii*. Hippotes's Miner Bee (*Andrena hippotes*). Lupine Miner Bee (*Andrena lupinorum*). Rose Miner Bee (*Andrena melanochoa*). Small Green Miner Bee (*Andrena microchlora*) –(M & N) (fq) “Oligolectic on *Lomatium* and *Sanicula*.”. *Andrena nevadensis*. *Andrena orthocarpus*. Pale-faced Miner Bee (*Andrena pallidifovea*). Piper's Miner Bee (*Andrena piperi*). Willow Mining Bee (*Andrena salicifloris*). *Andrena scurra* (M & N). *Andrena suavis* (M & N). Subtle Miner Bee (*Andrena subtilis*). *Andrena w-scripta* (M & N).
Apidae: Prickly Ceratina (*Ceratina acantha*). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: Dufourea sandhouseae (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). Megachilidae: Kincaid's Mason Bee (*Osmia kincaidii*). *Osmia penstemonis*.

Lomatium californicum. **California Lomatium**. March-April.

Lomatium caruifolium. **Alkali Parsnip**. March-May.

Lomatium ciliolatum. **Yolla Bolly Biscuitroot**. June-July.

Lomatium dasycarpum. **Lace Parsnip**. March-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena lomatii*. Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N).

In a Pinnacles National Monument survey, native bee visits were rated as relatively rare.

Lomatium hooveri. **Hoover's Lomatium**. April-July.

Lomatium macrocarpum. **Bigseed Biscuitroot**. February-March.

Lomatium marginatum. **Tall Hogfennel**. March-May.

Lomatium nudicaule. **Barestem Biscuitroot**. April-June.

Lomatium observatorium. **Mount Hamilton Lomatium**. March-May.

Lomatium parvifolium. **Coastal Biscuitroot**. January-June.

Lomatium repostum. **Napa Biscuitroot**. March-June.

Lomatium triternatum. **Nineleaf Biscuitroot**. February-March.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*). Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena scurra*. *Andrena vicinaoides*. Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*.

Lomatium utriculatum. **Bladder Parsnip**. March-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N). Small Green Miner Bee (*Andrena microchlora*) (M & N) (fq). *Andrena orthocarpi* (M & N). *Andrena pallidiscopa pallidiscopa* (M & N) (fq). *Andrena suavis*. Apidae: *Nomada* spp. (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N).

In a Pinnacles National Monument survey, native bee visits were rated as uncommon to rare.

Lomatium vaginatum. **Broadsheath Desertparsley**. April-May.

Lonicera sp.

Bees: Andrenidae: Green-bellied Miner Bee (*Andrena chlorogaster*). Hippotes's Miner Bee (*Andrena hippotes*). *Andrena nigrihirta*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Panurginus atriceps*. Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). California Cuckoo Bee (*Xeromelecta californica*). Megachilidae: Patchwork Leafcutter Bee (*Megachile centuncularis*). Blue Orchard Bee (*Osmia lignaria*). *Osmia tersula*.

Lonicera hispidula. **Pink Honeysuckle**. April-July.

Bees: Apidae: California Bumblebee (*Bombus californicus*) n. Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) n. Sitka Bumblebee (*Bombus sitkensis*) n. Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Brooks, 2020). Prickly Ceratina (*Ceratina acantha*) (M & N). Halictidae: *Lasioglossum cooleyi* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Dianthidium pudicum*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Lonicera interrupta. **Chaparral Honeysuckle**. April-August.

Bees: Apidae: Honeybee (*Apis mellifera*). Fog-belt Bumblebee (*Bombus caliginosus*). (Moldenke). Megachilidae: *Heriades occidentalis*. White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis sambuci*. *Megachile angularum*. Blue Mason Bee (*Osmia cyarella*).

Lonicera involucrata. **Twin-berry**. June-August.

Bees: Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Halictidae: *Lasioglossum anhypops*. Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*).

Lonicera subspicata. **Southern Honeysuckle**. May-August.

Bees: Megachilidae: *Megachile angularum*. *Osmia gabrielis*.

Lonicera subspicata var. *denudata*. **Chaparral Honeysuckle**. May-August.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Lotus sp. Many are now assigned to *Asmispon* or *Hosackia*.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*). *Andrena nigrihirta*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Perdita trisignata*. Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). *Anthophora exigua*. *Anthophora flavocincta*. *Anthophora neglecta*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Sonoran Bumblebee (*Bombus sonorinus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). *Ceratina punctigena* (M & N). *Diadasia consociata* (M & N). *Diadasia nigrifrons* (M & N). *Eucera angustifrons* (M & N) – "Polylectic with emphasis on ... Lotus ...". Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Separated Cuckoo Bee (*Melecta separata callura*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). *Halictus ligatus* (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Megachilidae: Erhorn's Rotund-Resin Bee (*Anthidiellum erhorni*). *Hoplitis howardi*. Short Mason Bee (*Osmia brevis*). Yellowish Green Mason Bee (*Osmia calla*). *Osmia granulosa*. *Osmia nifoata*. Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia physariae*. *Osmia sedula*. *Osmia trevoris*.

Lupinus sp. **Lupines**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena buckelli*. *Andrena chapmanae*. *Andrena cleodora* (M & N). Lupine Miner Bee (*Andrena lupinorum*). Pale-faced Miner Bee (*Andrena pallidifovea*). Piper's Miner Bee (*Andrena piperi*) (M & N). *Andrena prolixa*. Orange-banded *Andrena* (*Andrena prunorum*). Apidae: California Digger (*Anthophora californica*) (M & N) (fq). Crotch's Digger (*Anthophora crotchii*) (M & N). Pacific Digger

(*Anthophora pacifica*) (M & N) (fq). Urbane Digger (*Anthophora urbana*) (M & N) (fq). Bear-like Digger Bee (*Anthophora ursina*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Eucera actiosa* (M & N) (fq). *Eucera albescens*. *Eucera angustifrons* (M & N) – “Polylectic with emphasis on ... *Lupinus* ...”. Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). *Eucera hurdi* (M & N). *Eucera lunata* (M & N) (fq). Silver Digger (*Habropoda miserabilis*) (M & N) (fq). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). Crotch's Nomad (*Nomada crotchii*). California Carpenter Bee (*Xylocopa californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halitidae: Agapostemon femoratus (M & N). *Dufourea tarsata* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum nevadense* (M & N) (fq). Megachilidae: Erhorn's Rotund-Resin Bee (*Anthidiellum erhorni*). *Megachile melanophaea*. Short Mason Bee (*Osmia brevis*). Bufflehead Mason Bee (*Osmia bucephala*). *Osmia cyanopoda*. Blue Mason Bee (*Osmia cyanella*). Dense-haired Mason Bee (*Osmia densa*). *Osmia juxta*. Kincaid's Mason Bee (*Osmia kincaidii*). *Osmia latisulcata*. *Osmia malina*. *Osmia morongana*. *Osmia nifoata*. Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia paradisica*. *Osmia sandhousae*. *Osmia trevoris*. *Protosmia rubifloris*. *Trachusa perdita*.

Lupinus affinis. **Fleshy Lupine**. March-May.

Lupinus albicaulis. **Sicklekeel Lupine**. August-September.

Lupinus albifrons. **Silver Bush Lupine**. April-July.

Bees: Apidae: California Bumblebee (*Bombus californicus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera lunata* (M & N). California Mountain Digger (*Habropoda depressa*) – (M & N) (fq). California Carpenter Bee (*Xylocopa californica*) (M & N). Megachilidae: *Anthidium collectum*. *Anthidium illustre*. *Osmia latisulcata*.

For bee visitation observations, this species was the 11th most popular in 2011 and 13th most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years, rare in two years.

Lupinus arboreus. **Tree Lupine**. April-May.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Halictidae: *Lasioglossum pavonotum* [Kaufeldt, 1954]. Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*). Blue Orchard Bee (*Osmia lignaria*).

Lupinus benthamii. **Spider Lupine**. March-June.

Bees: Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Lupinus bicolor. *Lupinus micranthus*. **Miniature Lupine**. March-June.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Apidae: Edward's Digger (*Anthophora edwardsii*) – (M & N) (fq). Pacific Digger (*Anthophora pacifica*) (M & N). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Eucera actiosa* (M & N) (fq). *Eucera lunata* (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*) (fq). Megachilidae: *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Hoplitis fulgida*. *Hoplitis sambuci*. Common Little Leaf-cutter Bee (*Megachile brevis*). Short Mason Bee (*Osmia brevis*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Lupinus chamissonis. **Dune Bush Lupine**. April-June.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Halictidae: *Lasioglossum pavonotum*. [Kaufeldt, 1954].

Lupinus concinnus. **Elegant Lupine**. March-May.

Bees: Megachilidae: *Osmia albolateralis*. *Osmia juxta*. *Osmia malina*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Lupinus formosus. **Summer Lupine**. June-October.

Bees: Apidae: *Eucera angustifrons* (M & N) (fq). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N) (fq). Megachilidae: *Anthidium illustre*. *Hoplitis fulgida*. *Hoplitis sambuci*. *Megachile coquilletti*. Dense-haired Mason Bee (*Osmia densa*). *Protosmia rubifloris*.

Lupinus hirsutissimus. **Stinging Lupine**. March-May.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N).

Lupinus latifolius. **Broadleaf Lupine**. April-May.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). *Eucera lunata* (M & N). Megachilidae: *Megachile gentilis*. *Megachile texana*. *Osmia juxta*.

Lupinus littoralis. **Seashore Lupine**. May-August.

Lupinus luteolus. **Butter Lupine**. June-July.

Lupinus microcarpus. **Chick Lupine**. *Lupinus subvexus*. May-June.

Lupinus microcarpus var. *densiflorus*. *Lupinus densiflorus*. **Whitewhorl Lupine**. May-June.

Bees: Apidae: Pacific Digger (*Anthophora pacifica*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). *Eucera actiosa* (M & N) (fq). Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). *Eucera lunata* (M & N). *Eucera stretchii* (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Lupinus nanus. **Sky Lupine**. March-May.

Bees: Andrenidae: *Andrena subhirta*. Apidae: Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*). Black-tailed Bumblebee (*Bombus melanopygus*). Western Bumblebee (*Bombus occidentalis*). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera actiosa* (M & N) (fq). *Eucera lunata* (M & N). *Eucera zonata* (M & N). California Mountain Digger (*Habropoda depressa*). Dimorphic Mountain Digger (*Habropoda tritissima*) (fq). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Hoplitis fulgida*. *Megachile subnigra*. *Osmia atrocyanea*. Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). Little Queen Mason Bee (*Osmia regulina*). *Osmia tristella*.

Knops, J., & Barthell, J. (1996). Flow abundance in a population of Sky Lupine (*Lupinus nanus*) over three years in central coastal California. *Madroño*, 43(1), 85-92. Retrieved May 9, 2020, from www.jstor.org/stable/41425120

Lupinus pachylobus. **Mount Diablo Lupine**. March-May.

Lupinus polyphyllus. **Bigleaf Lupine**. **Bog Lupine**. May-July.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Megachilidae: European Wool Carder Bee (*Anthidium manicatum*).

Reputed attractive; simply have found no specific records.

Lupinus rivularis. **Riverbank Lupine**. March-June.

Lupinus sericatus. **Cobb Mountain Lupine**. March-June.

Lupinus succulentus. **Arroyo Lupine**. February-May.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Eucera actiosa* (M & N) (fq). Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). *Eucera lunata* (M & N) (fq).

Lupinus tidestromii. **Tidestrom's Lupine**. April-June.

Lupinus tracyi. **Tracy's Lupine**. July.

Lupinus truncatus. **Truncate Leaf Lupine**. March-May.

Lupinus variicolor. **Varied Lupine**. April-July.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Lycopus sp. **Bugleweed**.

Bees: Megachilidae:: Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*). Flat-tailed Leafcutter Bee (*Megachile mendica*).

Lycopus americanus. **American Water Horehound**.

Bees: Apidae: Honeybee (*Apis mellifera*) sn fq. Halictidae: *Halictus ligatus* Colletidae: *Mesilla* Masked Bee (*Hyleus mesillae*). Megachilidae: Common Short Leaf-cutter Bee (*Megachile brevis*).

Flies: Syrphidae: European Drone Fly (*Eristalis arbustorum*) (Hilty). Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Among others especially wasps and flies.

Lycopus asper. **Rough Bugleweed**. July-August.

Lysichiton americanus. *Lysichiton camatschatcensis*. **American Skunkcabbage**. March-June.

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*).

Lysimachia latifolia. **Pacific Starflower**. April-July.

Five insects on its flowers, Greater Bee-fly (fq) (Moldenke).

Lythrum californicum. **California Loosestrife**. May-October.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Diadasia rinconis*. Lupine Long-horned Bee (*Melissodes lupinus*). Robust Long-horned Bee (*Melissodes robustior*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Megachilidae: *Dianthidium dubium*. Common Little Leaf-cutter Bee (*Megachile brevis*).

Gets some butterflies.

Madia sp. **Madia**. Note, a few former *Madia* assigned to other genera, most not.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Clarkia Ceratina (*Ceratina sequoiae*) (M & N). Halictidae: Titus' Lasioglossum (*Lasioglossum titusi*) (M & N).

Madia anomala. **Plumpseeded Madia**. April-June.

Madia citriodora. **Lemonscented Madia**. April-June.

Madia elegans. **Common Madia**. June-September.

Bees: Apidae: Honeybee (*Apis mellifera*). Prickly Ceratina. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Tarweed Long-horned Bee (*Tetralonia pomonae*). Horsefly-like Carpenter Bee. Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus*. *Lasioglossum titusi*. Megachilidae: *Ashmeadiella californica*. Horn-faced Leafcutter Bee (*Megachile fidelis*).

UC Bee Lab garden study got especially long-horned bees (*Melissodes*) and honeybees.

Flies: Syrphidae: Calligrapher Fly (*Toxomerus marginatus*) (Correa). *Toxomerus occidentalis* (Correa).

Madia exigua. **Small Tarweed**. April-June.

Madia glomerata. **Mountain Tarweed**. June-August.

Madia gracilis. **Slender Tarweed**. April-July.

Andrenidae: *Andrena subchalybea* (M & N). Apidae: Prickly Ceratina (*Ceratina acantha*) (fq), 4 other insects (Moldenke).

Madia radiata. **Showy Madia**. March-May.

Madia sativa. **Coastal Tarweed**. May-August.

Maianthemum dilatatum. *Maianthemum bifolium*. **Pacific May Lily**. May-June.

Maianthemum racemosum. *Smilacina racemosa*. **Feathery False Lily of the Valley**. May-July.

Bees: Apidae: Honeybee (*Apis mellifera*). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*).

Flies: Syrphidae: European Drone Fly (*Eristalis arbustorum*) (Hilty).

Maianthemum stellatum. *Smilacina stellata*. **Slim Solomon**. May-June.

Bees: Andrenidae: *Andrena nigrihirta*. Apidae: Honeybee (*Apis mellifera*). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*).

Flies: Bomyliidae: Greater Bee-fly (Moldenke). Syrphidae: European Drone Fly (*Eristalis arbustorum*) (Hilty). Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Malacothamnus sp. Formerly assigned to *Malvastrum*.

Bees: Apidae: *Anthophorula nitens* (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).

Malacothamnus aboriginum. *Malvastrum aboriginum*. **Gray Bush Mallow**. April-October.

Bees: Megachilidae: *Anthidium illustre*.

Malacothamnus arcuatus. *Malacothamnus fasciculatus*. **Arcuate Bush Mallow**. April-September.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Apidae: *Anthophorula nitens* (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Diadasia nigrifrons* (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in four years.

Malacothamnus davidsonii. **Davidson's Bush Mallow**. June-January.

Malacothamnus fasciculatus. *Malvastrum fasciculatum*. *Malvastrum thurberi*. *Sphaeralcea fasciculata* **Bush Mallow**. April-July.

Bees: Apidae: Anthophorula nitens (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). *Diadasia laticauda* – (M & N) (fq). *Diadasia nitidifrons* (M & N). Ochraceous Chimney Bee (*Diadasia ochracea*). *Diadasia rinconis*. Small Long-horned Bee (*Melissodes microstictus*) – (M & N) (fq). *Melissodes tessellatus*. Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N) (fq). Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Anthidium illustre*. *Hoplitis fulgida*. Common Little Leaf-cutter Bee (*Megachile brevis*).

12 bee species among 21 insect species captured on its flowers (Moldenke).

Malacothamnus fremontii. *Malvastrum fremontii*. **Fremont's Bush Mallow**. May-July.

Bees: Apidae: *Diadasia laticauda*. Ochraceous Chimney Bee (*Diadasia ochracea*).

Malacothrix sp. **Desert Dandelions**.

Bees: Andrenidae: *Andrena nigra* (M & N). *Andrena olivacea*. *Andrena palpalis*. *Andrena subchalybea* (M & N) (fq) [active early morning]. *Calliopsis fracta*. *Calliopsis obscurella*. *Perdita malacothricis*. *Perdita nitens*. Apidae: *Anthophora petrophila*. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Megachilidae: *Ashmeadiella bigeloviae*. *Ashmeadiella cubiceps*. *Dioxys pacifica*. *Dioxys pomonae*.

Malacothrix californica. **Desert Dandelion**. March-May.

Bees: Andrenidae: *Andrena olivacea* (M & N) (fq). *Calliopsis obscurella* (M & N). *Perdita malacothricis*. Apidae: Arizona Ceratina (*Ceratina arizonensis*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N) (fq). *Dufourea sandhouseae* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Megachile montivaga*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Malacothrix clevelandii. **Cleveland's Dandelion**. April-July.

Malacothrix coulteri. **Snake's Head**. March-May.

Malacothrix floccifera. **Woolly Desertdandelion**. March-November.

Malosma laurina. *Rhus laurina*. **Laurel Sumac**. June - July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N) (fq). Halictidae: Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Malus sp. **Apples**. Old California records likely refer to the following species.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). Hippotes's Miner Bee (*Andrena hippotes*). *Andrena nigra* (M & N). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N).

Malus fusca. *Malus diversiloba*. *Pyrus fusca*. **Oregon Crabapple**. April-May.

Malvaceae. **Mallow Family**.

Bees: Apidae: *Diadasia laticauda* (M & N) – “oligolectic of Malvaceae, particularly of *Malacothamnus*”. *Diadasia nitidifrons* (M & N).

Malvastrum sp. Former assignment for *Malacothamnus*. **Bush Mallow**.

Bees: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Diadasia laticauda* (M & N) (fq).

Malvella leprosa. *Sida hederacea*. *Sida leprosa*. **Alkali Mallow**. April-October.

Bees: Apidae: *Diadasia consociata* (M & N). *Melissodes tepida timberlakei* (M & N) (fq).

Marah sp. **Wild Cucumber**.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Ochraceous Chimney Bee (*Diadasia ochracea*).

Meconella.

Bees: Andrenidae: *Andrena orthocarpi*.

Meconella californica. **California Fairpoppy**. March-May.

Meconella denticulata. **Smallflower Fairpoppy**. March-June.

Meconella oregana. **White Fairpoppy**. March-April.

Melanthiaceae. **Bunchflower Family**. Genera of this family in our area include *Toxicoscordion* (formerly *Zigadenus*), *Trillium*, *Veratrum*, and *Xerophyllum*.

Bees: Andrenidae: Deathcamas Miner Bee (*Andrena astragali*) (M & N) – “Oligolectic on the Melanthiaceae.”

Mentha sp. **Mints**.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Ochraceous Chimney Bee (*Diadasia ochracea*). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Megachilidae: Flat-tailed Leafcutter Bee (*Megachile mendica*). Friendly Mason Bee (*Osmia proxima*). *Protosmia rubifloris*.

Mentha arvensis. **Field Mint**. March-May.

Bees: Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*) (M & N).

Flies: Syrphidae: European Drone Fly (*Eristalis arbustorum*) (Hilty). Thick-legged Hoverfly (*Syrpitta pipiens*) (Hilty).

Mentha canadensis. **Wild Mint**. July-October.

Bees: Apidae: Agile Long-horned Bee (*Melissodes agilis*).

Mentzelia sp.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). Apidae: Anthophora exigua. California Bumblebee (*Bombus californicus*) (M & N). Great Northern Bumblebee (*Bombus fervidus*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N) (fq). Megachilidae: *Osmia paradisica*.

Mentzelia affinis. **Yellow Comet**. April-May.

Mentzelia dispersa. **Nada Stickleaf**. May-August.

Mentzelia laevicaulis. **Giant Blazingstar**. August-October.

Bees: Apidae: Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Red-belted Bumblebee (*Bombus rufocinctus*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Halictidae: *Lasioglossum nevadense* (M & N). *Lasioglossum tegulariforme* (M & N). *Lasioglossum trizonatum* (M & N). Megachilidae: *Megachile angelarum*.

Mentzelia lindleyi. *Bartonia aurea*. **Golden Bartonia**. **Lindley's Blazingstar**. May-June.

Bees: Apidae: California Digger (*Anthophora californica*). Edward's Digger (*Anthophora edwardsii*) (M & N).

UC Bee Lab garden study got especially bumblebees.

Mentzelia micrantha. **Chaparral Blazing Star**. April-June.

Bees: Apidae: California Mountain Digger (*Habropoda depressa*).

Mentzelia tridentata. **Threetooth Blazing Star**. March-May.

Menyanthes trifoliata. **Bogbean**. April-May.

Micranthes californica. *Saxifraga californica*. **Greene's Saxifrage**. March-April.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Micranthes integrifolia. *Saxifraga integrifolia*. **Smooth Leaf Saxifrage**. March-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Golden-Haired Miner Bee (*Andrena auricoma*).

Micranthes oregana. *Saxifraga oregana*. **Bog Saxifrage**. July-August.

Microseris sp. **Silverpuffs**.

Bees: Apidae: *Andrena chalyboides* (M & N) (fq) – thought oligolectic in part to this genus.
Halictidae: *Lasioglossum cooleyi* (M & N).

Microseris acuminata. Needle *Microseris*. April-June.

Microseris bigelovii. **Coastal Silverpuffs**. April-July.

Microseris campestris. **San Joaquin Silverpuffs**. April-June.

Microseris douglasii. **Douglas' Silverpuffs**. March-May.

Andrenidae: *Andrena subchalybea* (M & N) (fq) [active early morning].

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Microseris elegans. **Elegant Silverpuffs**. April-May.

Microseris laciniata. **Cutleaf Silverpuffs**. May-June.

Microseris nutans. **Nodding Scorzonella**. May-June.

Bees: Andrenidae: *Andrena columbiana* (M & N). Blue-and-Black *Andrena* (*Andrena*

nigrocaerulea) – (M & N) (fq). Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Colletidae: Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Megachilidae: *Osmia juxta*.

Microseris paludosa. *Scorzonella paludosa*. **Marsh Silverpuffs**. April-June.

Microseris sylvatica. **Sylvan Scorzonella**. March-June.

Microsteris gracilis. *Phlox gracilis*. **Slender Phlox**. February-June.

Apidae: *Eucera lunata* (M & N).

Flowers attract Pacific Orangetip butterflies.

Mimetanthe pilosa. *Mimulus pilosa*. **False Monkeyflower**. April-August.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year.

Mimulus sp. **Monkeyflowers**. Now split into *Diplacus* and *Erythranthe* as well,

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*). *Andrena subchalybea* (M & N). Apidae: Black-notched Bumblebee (*Bombus bifarius*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Common Chimney Bee (*Diadasia bituberculata*) (M & N). Colletidae: Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: *Lasioglossum orthocarpi* (M & N). *Lasioglossum pullilabre* (M & N). Megachilidae: *Ashmeadiella cactorum*. *Chelostoma minutum*. *Chelostoma phaceliae*. Large Indigo Mason Bee (*Osmia atrocyanea*). *Osmia bakeri*. California Mason Bee (*Osmia californica*). Blue Mason Bee (*Osmia cyanella*). Dense-haired Mason Bee (*Osmia densa*). *Osmia glauca*. *Osmia granulosa*. Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). Small Indigo Mason Bee (*Osmia tristella*). *Protosmia rubifloris*.

Mimulus rattanii ssp. *decurtus*. **Santa Cruz County Monkeyflower**. May-July.

Minuartia californica. *Arenaria californica*. **California Sandwort**. February-April.

Andrenidae: Small Green Miner Bee (*Andrena microchlora*) (M & N).

Minuartia douglasii. *Arenaria douglasii*. **Douglas' Sandwort**. April-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Apidae: *Nomada* spp. (M & N). Halictidae: *Dufourea sandhouseae* (M & N).

Minuartia pusilla. *Arenaria pusilla*. **Annual Sandwort**. March-April.

Halictidae: *Halictus tripartitus* (M & N). Sphecodes #54 (M & N).

Mirabilis sp.

Bees: Apidae: Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N).

Mirabilis laevis. *Mirabilis californica*. *Mirabilis laevis* var. *crassifolia*. **California Four o'clock**. February-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Apidae: California Digger (*Anthophora californica*). Urbane Digger (*Anthophora urbana*) (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). *Melissodes velutinus* (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum ovaliceps* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Moehringia macrophylla. *Arenaria macrophylla*. **Largeleaf Sandwort**. April-June.

***Monardella* sp.**

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Halictidae: *Lasioglossum nevadense* (M & N). Megachilidae: *Anthidium mormonum*. Short Mason Bee (*Osmia brevis*). Dense-haired Mason Bee (*Osmia densa*). *Osmia granulosa*. *Osmia paradisica*. *Osmia penstemonis*. *Trachusa timberlakei*.

Monardella antonina. **San Antonio Hills Monardella**. June-August.

Monardella breweri. **Brewer's Monardella**. June-August.

Monardella douglasii. **Douglas' Monardella**. May-June.

Monardella lanceolata. **Mustang Mint**.

Bees: Andrenidae: *Andrena chalyboides* (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). California Carpenter Bee (*Xylocopa californica*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: Ultra Green Sweat Bee

(*Agapostemon texanus*) (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Monardella odoratissima. **Mountain Monardella**. June-August.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Colletidae: Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N).

Monardella purpurea. **Serpentine Monardella**. June-July.

Monardella sheltonii. **Shelton's Monardella**. June-August.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Ceratina tejonensis*. *Melissodes rivalis*. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Megachilidae: *Megachile angelarum*. Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile pugnata*. Blue Mason Bee (*Osmia cyanella*). Dense-haired Mason Bee (*Osmia densa*). *Osmia juxta*. Texas *Osmia* (*Osmia texana*).

Monardella sinuata. **Curlyleaf Monardella**. May-July.

Monardella undulata. **Curlyleaf Monardella**. May-September.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N).

Monardella villosa. **Coyote Mint**. June-August.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Arizona *Ceratina* (*Ceratina arizonensis*) (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). Halictidae: *Lasioglossum incompletum* (M & N). Megachilidae: *Megachile apicalis*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in three years.

Monolopia gracilens. **Woodland Monolopia**, May-July.

Monolopia lanceolata. **Common Monolopia**. March-May.

Bees: Andrenidae: *Andrena subchalybea* (M & N) [active early morning]. *Andrena submoesta* (M & N) (fq).

Monolopia major. **Cupped Monolopia**. Feb-Jul.

Bees: Andrenidae: *Andrena cruciferarum*.

Monotropa hypopitys. **Pinesap**. July-August.

Montia sp. Many formerly so designated now assigned to *Claytonia*.

Bees: Andrenidae: *Andrena anisochlora* (M & N). *Andrena nemophilae* (N & M).

Montia diffusa. **Spreading Miner's Lettuce**. March-May.

Montia fontana. **Water Chickweed**. March-June.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Montia linearis. **Narrowleaf Minerslettuce**. April-June.

Montia parvifolia. **Showy Rock Montia**. May-August.

Morella californica. *Myrica californica*. **California Wax Myrtle**. June-July.

Bees: Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Muilla maritima. **Common Muilla**. March-June.

Bees: Andrenidae: *Panurginus melanocephalus* (M & N). Halictidae: Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N).

Myriophyllum hippuroides. **Milfoil**. July-September.

Myriophyllum sibiricum. **Shortspike Watermilfoil**. June-September.

Myriophyllum verticillatum. **Whorl Leaf Watermilfoil**. July-September.

Nasturtium officinale. *Rorippa nasturtium-aquaticum*. **Watercress**.

Bees: Megachilidae: *Protosmia rubifloris*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon one year, rare in another.

Navarretia atractyloides. **Hollyleaf Pincushionplant**. May-June.

Bees: Halictidae: *Lasioglossum incompletum* (M & N).

Navarretia cotulifolia. **Cotulaleaf Pincushionplant**. May-June.

Navarretia divaricata. **Mountain Navarretia**. May-August.

Bees: Megachilidae: *Osmia potentillae*.

Navarretia eriocephala. **Hoary Pincushionplant**. May-June.

Navarretia gowenii. **Lime Ridge Navarretia**. May-June.

Navarretia hamata. **Hooked Pincushionplant**. May-July.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year. Grant & Grant noted *Bombylius lancifer* and other flies, and a Chalcedon Checkerspot butterfly.

Navarretia heterandra. **Tehama Pincushionplant**. April-June.

Navarretia heterodoxa. **Calistoga Navarretia**. May-July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Anthophorula nitens* (M & N) (fq). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N) (fq). Prickly Ceratina (*Ceratina acantha*) (fq) (Moldenke). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). *Melissodes sternsi* (M & N). Halictidae: *Halictus tripartitus* (M & N). *Sphecodes* #53 (M & N).

17 bee species among 33 insect species captured on its flowers (Moldenke). Its flowers “the” place to find White-headed Bee-fly (*Bombylius albicapillus*), a species parasitic on ground-nesting bees.

Navarretia intertexta. **Needleleaf Navarretia**. April-July.

Navarretia jepsonii. **Jepson’s Pincushionplant**. April-June.

Navarretia leptalea. **Bridges’ Pincushionplant**. June-July.

Navarretia leucocephala. **Whitehead Navarretia**. April-July.

Navarretia mellita. **Honeyscented Pincushionplant**. May-June.

Navarretia nigeliformis. **Adobe Navarretia**. April-June.

Navarretia prostrata. **Prostrate Pincushionplant**. April-July.

Navarretia pubescens. **Purple Navarretia**. April-June.

Navarretia rosulata. **San Anselmo Navarretia**. May-July.

Navarretia sinistra. **Alva Day's Pincushionplant**. June-August.

Navarretia squarrosa. **Skunkweed**. May-September.

Bees: Halictidae: Halictus tripartitus (M & N). Megachilidae: Pacific Wool-carder Bee (Anthidium palliventre).

Navarretia subuligera. **Awl Leaf Pincushionplant**. April-August.

Navarretia tagetina. **Marigold Pincushionplant**. April-June.

Navarretia vixscidula. **Sticky Navarretia**. June-July.

Bees: Andrenidae: Perdita navarretiae. Megachilidae: Ashmeadiella californica.

Nemophila sp.

Bees: Andrenidae: Caerulean Miner Bee (Andrena caerulea). Andrena candidiformis. Dark-tailed Andrena (Andrena fuscicauda) (M & N). Andrena hypoleuca. Andrena macrocephala (M & N) (fq) "Oligolectic on Nemophila." Andrena nemophilae (M & N) (fq) "Oligolectic on Nemophila." Andrena nigripes. Clover Andrena (Andrena plana). Santa Clara Andrena (Andrena santaclarae). Andrena torulosa (M & N) "Oligolectic on Nemophila." Panurginus nigrellus. Apidae: Fuzzy-horned Bumblebee (Bombus mixtus). Clarkia Ceratina (Ceratina sequoiae) (M & N). Eucera lunata (M & N). Lupine Long-horned Bee (Melissodes lupinus) (M & N). Nomada spp. (M & N). Colletidae: Colletes californicus (M & N). Halictidae: Ultra Green Sweat Bee (Agapostemon texanus) (M & N). Dufourea femorata (M & N). Dufourea mulleri [M & N – fq]. Dufourea tarsata (M & N). Halictus tripartitus (M & N). Tansy Mustard Sweat Bee (Lasioglossum sisymbrii) (M & N). Megachilidae: Chelostoma minutum. Dioxys pacifica. Osmia albolateralis. Osmia bakeri. Kincaid's Mason Bee (Osmia kincaidii). Osmia nanula. Osmia physariae. Protosmia rubifloris.

Nemophila heterophylla. **Canyon Nemophila**. April-June.

Bees: Andrenidae: Andrena anisochlora (M & N). Apidae: Prickly Ceratina (Ceratina acantha) (M & N). Halictidae: Halictus tripartitus (M & N).

Nemophila maculata. **Five Spot**. February - April. (A late addition; likely gets many more bees).

Andrenidae: Panurginus atriceps (M & N) (fq).

Nemophila menziesii. Nemophila menziesii subsp. liniflora. **Baby Blue-eyes**. March-June.

Bees: Andrenidae: Striped Mining Bee. Golden-Haired Miner Bee (Andrena auricoma), Mock-

orange Miner Bee (*Andrena candida*) – (M & N) (fq). *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena crudeni*. Greenish Burrowing Bee (*Andrena cuneilabris*). Copper-tinted Miner Bee (*Andrena cupreotincta*). *Andrena macrocephala* fq. *Andrena nemophilae* (N & M) (fq). *Andrena nigripes*. Blue-and -Black *Andrena* (*Andrena nigrocaerulea*). *Andrena torulosa* – (M & N) (fq). *Calliopsis obscurella*. Apidae: Honeybee (*Apis mellifera*) fq. *Eucera lunata*. *Eucera zonata* (M & N). California Mountain Digger (*Hapropoda depressa*). Colletidae: *Colletes californicus* (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: *Dufourea sandhouseae* (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). *Micralictoides ruficaudus* (M & N). Megachilidae: *Chelostoma californicum*. *Chelostoma minutum*. *Hoplitis fulgida*. *Osmia albolateralis*. *Osmia bakeri*. Short Mason Bee (*Osmia brevis*). Dense-haired Mason Bee (*Osmia densa*). *Osmia exigua*. *Osmia glauca*. *Osmia juxta*. Blue Orchard Bee (*Osmia lignaria*). *Osmia potentillae*. *Protosmia rubifloris*.

Cruden, R. (1972). Pollination Biology of *Nemophila menziesii* (Hydrophyllaceae) with Comments on the Evolution of Oligolectic Bees. *Evolution*, 26(3), 373-389.
doi:10.2307/2407013

Nemophila menziesii var. *atomaria*. March-June.

Bees: Andrenidae: *Andrena torulosa* fq.

Flowers also visited by March Flies (Bibionidae).

Nemophila menziesii var. *menziesii*. March-June.

Bees: Andrenidae: *Andrena torulosa* (M & N) (fq).

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Nemophila parviflora. **Smallflower Nemophila**. May-June.

Nemophila parviflora var. *austinae*. **Rebecca Austin's Nemophila**. May-June.

Nemophila parviflora var. *quercefolia*. **Oak Leaved Nemophila**. May - June.

Nemophila pedunculata. **Meadow Nemophila**. February-July.

Nemophila pulchella. **Eastwood's Nemophila**. March-May.

Bees: Andrenidae: *Andrena nemophilae* (N & M) (fq). *Panurginus atriceps*. *Panurginus nigrellus* – (M & N) (fq). Megachilidae: *Osmia glauca*.

Nemophila pulchella var. *fremontii*. *Nemophila fremontii*. **Fremont's Nemophila**. March- May.

Nicotiana attenuata. **Coyote Tobacco**. May-October.

Nicotiana quadrivalvis. *Nicotiana bigelovii*, **Indian Tobacco**. May-October.

Nitrophila occidentalis. **Boraxweed**. April-June.

Notholithocarpus densiflorus. **Tanoak**. June-October.

Bees: Apidae: Pacific Digger (*Anthophora pacifica*).

Flowers visited by beetles, bees, flies, and a few ants.

Wright, J., & Dodd, R. (2013). Could Tanoak mortality affect insect biodiversity? Evidence for insect pollination in tanoaks. *Madroño*, 60(2), 87-94. Retrieved June 4, 2020, from www.jstor.org/stable/43288619

Nuphar polysephala. **Rocky Mountain Pond-lily**. March-May.

Beetles seem likely based on the form of the flower and studies on other species of the genus.

Nuttallanthus canadensis. *Linaria canadensis*. **Canada Toadflax**.

Bees: Megachilidae: Friendly Mason Bee (*Osmia proxima*).

Nuttallanthus texanus. *Linaria canadensis*. *Linaria texana*. **Blue Toadflax**. March-May.

Odontostomum hartwegii. **Hartweg's Doll's Lily**. April-May.

Oemleria cerasiformis. *Osmaronia cerasiformis*. **Osoberry**. **Indian Plum**. March-May.

Bees: Halictidae: Peridot Bee (*Augochlorella pomoniella*). (Moldenke); one of only 3 flower-visiting insects he captured on it.

Oenanthe sarmentosa. **Water Parsley**. May-July.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Halictidae: *Lasioglossum cooleyi* (M & N). *Lasioglossum olympiae* (M & N). *Lasioglossum pavonotum* (M & N).

Oenothera sp. **Evening Primrose**. Now includes *Camissonia*, *Camissoniopsis*, *Chylismia*, *Eremothera*, *Eulobus*, *Taraxia* and *Tetrapteron*.

Bees: Andrenidae: *Andrena atypica*. Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena*

cristata. Blue-and-Black Andrena (*Andrena nigrocaerulea*). *Andrena w-scripta*. *Calliopsis fracta* (M & N) Apidae: California Digger (*Anthophora californica*) (M & N). Crotch's Digger (*Anthophora crotchii*) (M & N). *Anthophora petrophila*. Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Clarkia Ceratina (*Ceratina sequoiae*) (M & N). *Eucera albescens*. Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Halictidae: *Dufourea sandhouseae* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Protosmia rubifloris*.

Oenothera deltoidea. Dune Primrose. March-September.

Bees: Apidae: Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N).

Oenothera deltoidea ssp. *howellii*. **Antioch Dunes Evening Primrose**. March-September.

Bees: Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N) (fq) – at least for species, not recorded specifically for this segregate but seems likely. Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

Oenothera elata ssp. *hirsutissima*. **Hairy Evening Primrose**. June-September.

Oenothera elata ssp. *hookeri*. *Oenothera hookeri*. **Evening Primrose**. August-September.

Bees: Apidae: Honeybee (*Apis mellifera*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Ceratina tejonensis* (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*) fq; other bees rarely seen; thought to be an effective pollinator. Colletidae: *Hylaeus* sp. Halictidae: *Agapostemon* sp. *Halictus* sp. *Lasioglossum* sp. *Lasioglossum incompletum*. Megachilidae: Colorado Osmia (*Osmia coloradensis*).

Barthell, J., & Knops, J. (1997). Visitation of Evening Primrose by Carpenter Bees: Evidence of a "Mixed" Pollination Syndrome. *The Southwestern Naturalist*, 42(1), 86-93. Retrieved June 3, 2020, from www.jstor.org/stable/30054064

Orobanche californica. **California Broomrape**. May-August.

Orobanche valida. **Rock Creek Broomrape**. May-September.

Orthocarpus sp. **Owl's Clovers**. Now assigned to *Castilleja* or *Triphysaria* rendering it a somewhat vague designation.

Apidae: Crotch's Digger (*Anthophora crotchii*) (M & N). Edward's Digger (*Anthophora edwardsii*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Eucera actiosa* (M & N) (fq). Halictidae: Ultra Green Sweat Bee

(*Agapostemon texanus*) (M & N).

Osmorhiza sp. **Cicely**.

Bees: Apidae: Sonoran Bumblebee (*Bombus sonorus*) (M & N).

Osmorhiza berteroi. *Osmorhiza chilensis*. *Osmorhiza bevipipes*. *Osmorhiza divaricata*. **Sweet Cicely**. March-August.

Osmorhiza brachypoda. **California Cicely**. March-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*).

Osmorhiza depauperata. *Osmorhiza obtusa*. *Washingtonia obtusa*. **Bluntseed Sweetroot**. May-July.

Osmorhiza occidentalis. *Glycosma occidentalis*. *Osmorhiza ambigua*. **Western Sweet Cicely**. March-May.

Oxalis californica. **California Wood Sorrel**. February-June.

Oxalis oregana. **Redwood Sorrel**. February-June.

Bees: Apidae: Sitka Bumblebee (*Bombus sitkensis*) (M & N).

Oxalis pilosa. **Hairy Wood Sorrel**. February-September.

Oxalis suksdorfii. **Suksdorf Woodsorrel**. May-August.

Packera sp. Many formerly assigned to *Senecio*.

Bees: Megachilidae: *Anthidium mormonum*. Golden-tailed Leafcutter (*Megachile relativa*). *Megachile subnigra*. Bufflehead Mason Bee (*Osmia bucephala*). *Osmia juxta*. *Osmia nifoata*. *Protosmia rubifloris*.

Packera breweri. **Brewer's Ragwort**. April-May.

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Packera clevelandii. **Cleveland's Ragwort**. May-August.

Packera eurycephala. **Widehead Groundsel**. March-July.

Packera greenei. **Flame Ragwort**. May-June.

Paeonia brownii. **Western Peony**. April-May.

Bees: Andrenidae: *Andrena chlorura*. Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). *Ceratina tejonensis* (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum allonotus* (M & N). *Lasioglossum nevadense* (M & N).

Papaver californicum. **Fire Poppy**. April-May.

Bees: Andrenidae: Lonely Miner (*Andrena sola*).

Papaver heterophyllum. *Stylomecon heterophylla*. **Wind Poppy**. April-May.

Pedicularis sp

Bees: Apidae: Fuzzy-horned Bumblebee (*Bombus mixtus*). Halictidae: *Agapostemon femoratus* (M & N). Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*).

Pedicularis densiflora. **Indian Warrior**.

Bees: Apidae: Pacific Digger (*Anthophora pacifica*) (M & N) (fq). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Hummingbirds frequent; sometimes Pale Swallowtail.

Pedicularis dudleyi. **Dudley's Lousewort**. April-June.

Pediomelum californicum. **Indian Breadroot**.

Bees: Megachilidae: *Osmia visenda*.

Penstemon sp. Some are now *Keckiella*. **Beardtongue**.

Bees: Andrenidae: Piper's Miner Bee (*Andrena piperi*). Orange-banded *Andrena* (*Andrena prunorum*). *Andrena transnigra*. Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). *Anthophora exigua*. Urbane Digger (*Anthophora urbana*) (M & N). Bear-like Digger Bee (*Anthophora ursina*). Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). *Clarkia Ceratina* (*Ceratina sequoiae*) (M &

N). Common Chimney Bee (*Diadasia bituberculata*) (M & N). *Diadasia laticauda* (M & N). *Diadasia rinconis*. *Eucera angustifrons* (M & N) – “Polylectic with emphasis on ... *Penstemon* ...” Edwards’s Long-horned Bee (*Eucera edwardsii*). *Eucera stretchii*. Small Long-horned Bee (*Melissodes microstictus*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacosmia maculata* (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nevadense* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N) (fq). *Lasioglossum trizonatum* (M & N). Megachilidae: *Anthidium banningense*. Utah Wool-carder Bee (*Anthidium utahense*). *Chelostoma minutum*. Short Mason Bee (*Osmia brevis*). Bufflehead Mason Bee (*Osmia bucephala*). Yellowish Green Mason Bee (*Osmia calla*). *Osmia cyanopoda*. Dense-haired Mason Bee (*Osmia densa*). *Osmia inurbana*. *Osmia juxta*. Kincaid’s Mason Bee (*Osmia kincaidii*). *Osmia nifoata*. *Osmia paradisica*. *Osmia penstemonis*. Friendly Mason Bee (*Osmia proxima*). *Osmia sandhousae*. *Osmia trevoris*. *Protosmia rubifloris*.

Penstemon centranthifolius. **Scarlet Bugler**. April-July.

Bees: Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N). Halictidae: *Lasioglossum mellipes* (M & N). Megachilidae: *Dianthidium dubium*. *Dianthidium ulkei*. *Hoplitis producta*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years, rare in one year.

Penstemon grinnellii. **Grinnell’s Beardtongue**. May-July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Ceratina tejonensis* (M & N). Colletidae: Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Lasioglossum nevadense* (M & N). *Lasioglossum ovaliceps* (M & N). *Lasioglossum trizonatum* (M & N).

Penstemon heterodoxus. **Sierra Beardtongue**. May-September.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Halictidae: *Lasioglossum ovaliceps* (M & N).

Penstemon heterophyllus. **Bunchleaf Penstemon**. May-July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Eucera stretchii*. Valley Carpenter Bee (*Xylocopa varipuncta*). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Megachilidae: *Ashmediella timberlakei*. *Osmia aglaia*. Short Mason Bee (*Osmia brevis*). *Osmia cara*. Blue Mason Bee (*Osmia cyanella*). *Osmia granulosa*.

UC Bee Lab garden study commends making patches one meter or larger in diameter. Got especially bumblebees and *Osmia* mason bees.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in

three years, and rare in one year.

Penstemon newberryi. **Mountain Pride**. April-May. *sonomensis*: April-August; these are ours.

Bees: Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N).

Hummingbirds.

Pentachaeta aurea. *Chaetopappa aurea*. **Golden Chaetopappa**. March-June.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). *Anthophora exigua*. Urbane Digger (*Anthophora urbana*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Halictidae: *Halictus ligatus* (M & N).

Perideridia sp.

Bees: Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Megachilidae: *Anthidium mormonum*.

Perideridia californica. **California Yampah**. April-May.

In a Pinnacles National Monument survey, native bee visits were rated as rare.

Perideridia gairdneri. **Yampah**. April-May.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N).

Perideridia kelloggii. **Kellogg's Yampah**. June-August.

Bees: Apidae: Honeybee (*Apis mellifera*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Halictidae: *Halictus tripartitus*. *Lasioglossum incompletum*.

Flies: Syrphidae: Interrupted Hornet Fly (*Spilomyia interrupta*) (Correa).

Persicaria amphibia. *Polygonum amphibium*. **Water Smartweed**. June-October.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Persicaria hydropiperoides. *Polygonum hydropiperoides*. **Water Pepper**. June-October.

Bees: Apidae: Honeybee (*Apis mellifera*). Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*). Megachilidae: *Coelioxys sayi*. Common Little Leaf-cutter Bee (*Megachile brevis*). Flat-tailed Leafcutter Bee (*Megachile mendica*).

Various wasps among other visitors.

Flies: Syrphidae: Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty).

Persicaria lapathifolia. *Polygonum lapathifolium*. **Willow Weed**. August-November.

Bees: Andrenidae: *Perdita interserta*. Apidae: *Melissodes tessellatus* Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Agapostemon femoratus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum tegulariforme* (M & N). Alkali Bee (*Nomia melanderi*) (M & N).

Persicaria punctata. *Polygonum punctatum*. **Dotted Smartweed**. July-November.

Bees: Apidae: Honeybee (*Apis mellifera*). Western Bumblebee (*Bombus occidentalis*) (Laine).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Flies: Syrphidae: Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Petasites frigidus var. *palmatus*. **Western Coltsfoot**. March-May.

Bees: Andrenidae: *Andrena chlorura*. *Andrena nigrihirta*.

Phacelia sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Sandpit Mining Bee (*Andrena barbilabris*). *Andrena buckelli*. Caerulean Miner Bee (*Andrena caerulea*). *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq). *Andrena cleodora* (M & N). Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena cruciferarum*. Hippotes's Miner Bee (*Andrena hippotes*) (M & N). Lupine Miner Bee (*Andrena lupinorum*). Alice's *Andrena* (*Andrena mackieae*) (M & N). Western Red-legged Miner Bee (*Andrena medionitens*). Small Green Miner Bee (*Andrena microchlora*). *Andrena misella*. *Andrena nigra* – (M & N) (fq) "An oligolege of *Phacelia*.". Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) – (M & N) (fq). *Andrena nivalis*. *Andrena olivacea*. *Andrena orthocarpi*. *Andrena palpalis* – (M & N) (fq). *Andrena pensilis*. *Andrena perimelas*. Orange-banded *Andrena* (*Andrena prunorum*). *Andrena puthua*. Subtle Miner Bee (*Andrena subtilis*).

Topaz Miner Bee (*Andrena topazana*). *Andrena viridissima* (M & N) (fq). Bearded Nomadopsis (*Calliopsis barbata*). *Calliopsis fracta*. *Calliopsis obscurella*. *Panurginus atriceps*. *Perdita malacothricis*. Apidae: California Digger (*Anthophora californica*). Short Sun-Digger (*Anthophora curta*) (M & N). Edward's Digger (*Anthophora edwardsii*). *Anthophora flavocincta*. *Anthophora neglecta*. *Anthophora petrophila*. Phacelia Digger (*Anthophora phaceliae*). Urbane Digger (*Anthophora urbana*) – (M & N) (fq). Bear-like Digger Bee (*Anthophora ursina*). Black-notched Bumblebee (*Bombus bifarius*). Fog-belt Bumblebee (*Bombus caliginosus*). Crotch's Bumblebee (*Bombus crotchii*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Dwarf Ceratina (*Ceratina nanula*). Pacific Little Carpenter Bee (*Ceratina pacifica*). *Ceratina punctigena* (M & N). Common Chimney Bee (*Diadasia bituberculata*) (M & N). *Eucera actiosa* (M & N). *Eucera albescens*. *Eucera amisinckiae* (M & N). *Eucera angustifrons* (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N) (fq). Edwards's Long-horned Bee (*Eucera edwardsii*). *Eucera hurdi* (M & N). *Eucera lunata*. *Eucera stretchii*. Striped Long-horned Bee (*Eucera virgata*) (M & N). Ashy Digger Bee (*Habropoda cineraria*). California Mountain Digger (*Habropoda depressa*) (M & N) (fq). Silver Digger (*Habropoda miserabilis*) (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Edward's Mourning Bee (*Melecta edwardsii*) (M & N). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). Separated Cuckoo Bee (*Melecta separata callura*) (M & N). Small Long-horned Bee (*Melissodes microstictus*). *Melissodes sternsi* (M & N). *Nomada articulata*. Crotch's Nomad (*Nomada crotchii*). *Oreopasites vanduzeei*. California Cuckoo Bee (*Xermelecta californica*). Red-bellied Townsendiella (*Townsendiella rufiventris*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). California Carpenter Bee (*Xylocopa californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: *Colletes californicus*. *Colletes consors*. *Colletes consors pascoensis* (M & N) (fq). Slevin's Cellophane Bee (*Colletes slevini*). *Colletes turgiventris* [M & N – fq]. *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*). *Conanthalictus caeruleus*. *Dufourea mulleri* [M & N – fq]. *Dufourea sandhouseae* (M & N). *Dufourea trochantera* [M & N – fq]. *Halictus tripartitus*. *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum olympiae*. *Lasioglossum ovaliceps*. *Lasioglossum pullilabre* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Megachilidae: *Anthidium atrifrons* (64%). *Anthidium banningense* (78%) *Anthidium collectum* (31%). Emarginate Wool-carder Bee (*Anthidium emarginatum*). *Anthidium illustre*. *Anthidium maculosum*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella bigeloviae*. *Ashmeadiella cactorum*. *Atoposmia copelandica*. *Chelostoma californicum* (preferred host genus). *Chelostoma minutum*. *Chelostoma phaceliae* (preferred host genus). *Dianthidium ulkei*. *Dioxys pacifica*. *Dioxys pomonae*. *Heriades occidentalis*. Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*). White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis fulgida*. *Hoplitis grinnellii*. *Megachile*

angelarum. Common Little Leafcutter Bee (*Megachile brevis*). *Megachile melanophaea*. Western Leafcutter (*Megachile perihirta*). *Osmia albolateralis*. Large Indigo Mason Bee (*Osmia atrocyanea*). Short Mason Bee (*Osmia brevis*). California Mason Bee (*Osmia californica*). Yellowish Green Mason Bee (*Osmia calla*). *Osmia clarescens*. *Osmia cyanopoda*. *Osmia glauca*. *Osmia granulosa*. *Osmia inurbana*. *Osmia juxta*. Kincaid's Mason Bee (*Osmia kincaidii*). Blue Orchard Bee (*Osmia lignaria*). *Osmia malina*. *Osmia montana*. *Osmia nanula*. Western Forest Mason Bee (*Osmia nemoris*). Black-faced Mason Bee (*Osmia nigrifrons*). Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia penstemonis*. *Osmia sedula*. Texas *Osmia* (*Osmia texana*). *Osmia trevoris*. *Protosmia rubifloris*. Montana Cuckoo Carder Bee (*Stelis montana*).

Sedivy, C., Praz, C., Müller, A., Widmer, A., & Dorn, S. (2008). Patterns of Host-Plant Choice in Bees of the Genus *Chelostoma*: The Constraint Hypothesis of Host-Range Evolution in Bees. *Evolution*, 62(10), 2487-2507. Retrieved June 5, 2020, from www.jstor.org/stable/25150856

Phacelia breweri. **Brewer's Phacelia**. March-June.

Phacelia californica. **Rock Phacelia**. March-August.

Bees: Megachilidae: Emarginate Wool-carder Bee (*Anthidium emarginatum*). Utah Wool-carder Bee (*Anthidium utahense*). White-faced Summer Mason Bee (*Hoplitis albifrons*). Blue Mason Bee (*Osmia cyanella*).

UC Bee Lab garden study found especially Andrenids, bumblebees, *Osmia* mason bees.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon.

Phacelia cicutaria. **Caterpillar Phacelia**. March-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). Apidae: Urbane Digger (*Anthophora urbana*) (M & N) (fq).

Phacelia cicutaria var. *hispida*. *Phacelia hispida*. **Caterpillar Phacelia**. February-June.

Halictidae: Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Phacelia ciliata. **Great Valley Phacelia**. February-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq). *Andrena chlorosoma*. *Andrena orthocarpi*. *Andrena subchalybea* (M & N). *Andrena viridissima* (M & N). Apidae: Edward's Digger (*Anthophora edwardsii*). Urbane Digger (*Anthophora urbana*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera actiosa* (M & N) (fq). Megachilidae: *Anthidium mormonum*, *Ashmeadiella californica*, *Chelostoma californicum*, *Hoplitis fulgida*.

Phacelia distans. **Common Phacelia**. March-June.

Bees: Andrenidae: *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*) – (M & N) (fq). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq). Alice's *Andrena* (*Andrena mackieae*). *Andrena macrocephala* (M & N) (fq). *Andrena nigra* (M & N) (fq). *Andrena nigripes*. *Andrena palpalis* – (M & N) (fq). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena viridissima* (M & N) (fq). *Andrena w-scripta* (M & N). Bearded *Nomadopsis* (*Calliopsis barbata*). *Calliopsis obscurella*. Apidae: California Digger (*Anthophora californica*). Short Sun-Digger (*Anthophora curta*). Edward's Digger (*Anthophora edwardsii*). Urbane Digger (*Anthophora urbana*) (M & N). Honeybee (*Apis mellifera*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Arizona *Ceratina* (*Ceratina arizonensis*) (M & N). *Ceratina tejonensis* (M & N). American Cellophane-cuckoo Bee (*Epeolus americanus*) (M & N). *Eucera actiosa* (M & N) (fq). *Eucera angustifrons* (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Red-bellied Townsendiella (*Townsendiella rufiventris*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: *Colletes californicus* [M & N – fq]. *Colletes turgiventris* [M & N – fq]. *Hylaeus conspicuus* (M & N). *Hylaeus maritimus* (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N) (fq). *Dufourea mulleri* [M & N – fq]. *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum nigrescens* (M & N) (fq). *Lasioglossum ovaliceps* (M & N). *Lasioglossum pavonotum* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (fq– M. & N.). *Lasioglossum tegulariforme* (M & N). *Lasioglossum trizonatum* (M & N) (fq). Megachilidae: *Anthidium collectum*. *Anthidium edwardsii*. *Anthidium illustre*. Pacific Wool-carder Bee (*Anthidium palliventre*). Utah Wool-carder Bee (*Anthidium utahense*). *Atoposmia copelandica*. *Chelostoma californicum*. *Chelostoma minutum*. *Chelostoma phaceliae*. *Dianthidium pudicum*. *Hoplitis fulgida*. *Hoplitis producta*. Common Little Leaf-cutter Bee (*Megachile brevis*). Short Mason Bee (*Osmia brevis*). Bufflehead Mason Bee (*Osmia bucephala*). Dense-haired Mason Bee (*Osmia densa*). *Osmia glauca*. *Osmia integra*. Kincaid's Mason Bee (*Osmia kincaidii*). Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). *Osmia sedula*.

UC Bee Lab garden study found it attracts a wide variety of bees, reseeds.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years, rare in one year.

An attractive Hemiptera: Pleasant Plant Bug (*Closterocoris amoenus*).

Phacelia divaricata. **Divaricate Phacelia**. April-June.

Bees: Halictidae: *Dufourea mulleri*. *Dufourea trochantera*.

Phacelia egena. **Rock Phacelia**. March-June.

Bees: Apidae: Phacelia Digger (*Anthophora phaceliae*).

Phacelia heterophylla. **Varileaf Phacelia**. April-July.

Bees: Apidae: Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). California Carpenter Bee (*Xylocopa californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: *Colletes consors*. Halictidae: *Dufourea trochantera*. *Lasioglossum nevadense* (M & N). Megachilidae: *Anthidium atrifrons*. *Anthidium banningense*. Emarginate Wool-carder Bee (*Anthidium emarginatum*). *Anthidium mormonum*. *Chelostoma minutum*. Short Mason Bee (*Osmia brevis*). Dense-haired Mason Bee (*Osmia densa*). *Osmia paradisiaca*. *Protosmia rubifloris*.

Phacelia humilis. **Low Phacelia**. June-July.

Bees: Andrenidae: Blue-and-Black Andrena (*Andrena nigrocaerulea*) (M & N) (fq). Apidae: *Eucera actiosa* (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: Modest Masked Bee (*Hylaeus modestus*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). Vertical Masked Bee (*Hylaeus verticalis*) (M & N).

Phacelia imbricata. **Imbricate Phacelia**. February-April.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). California Digger (*Anthophora californica*) (M & N). Urbane Digger (*Anthophora urbana*) – (M & N) (fq). California Bumblebee (*Bombus californicus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Halictidae: *Lasioglossum ovaliceps* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Anthidium banningense*. *Anthidium collectum*. *Anthidium illustre*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*). *Chelostoma minutum*. *Chelostoma phaceliae*. *Hoplitis fulgida*, *Megachile coquilletti*. *Osmia aglaia*, Yellowish Green Mason Bee (*Osmia calla*). Colorado Osmia (*Osmia coloradensis*). Dense-haired Mason Bee (*Osmia densa*). *Osmia juxta*. *Osmia nifoata*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years, rare one year.

Phacelia malvifolia. **Stinging Phacelia**. April-July.

Bees: Megachilidae: *Anthidium collectum*. *Anthidium illustre*. *Anthidium mormonum*. Utah Wool-carder Bee (*Anthidium utahense*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year, uncommon in another.

Phacelia nemoralis. **Woods Phacelia**. April-July.

Phacelia phacelioides. *Eutoca phacelioides*. **Mount Diablo Phacelia**. April-May.

Phacelia ramosissima. **Branching Phacelia**. May-August.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*) – (M & N) (fq). Apidae: California Digger (*Anthophora californica*). *Phacelia* Digger (*Anthophora phaceliae*). Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Melissodes tepida timberlakei*. Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Dufourea mulleri* [M & N – fq]. *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: Erhorn's Rotund-Resin Bee (*Anthidiellum erhorni*). Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium atrifrons*. *Anthidium banningense*. *Anthidium edwardsii*. Emarginate Wool-carder Bee (*Anthidium emarginatum*). *Anthidium illustre*. *Anthidium maculosum*. *Anthidium mormonum*. Pacific Wool-carder Bee (*Anthidium palliventre*). Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella cactorum*. *Ashmeadiella timberlakei*. *Chelostoma minutum*. *Chelostoma phaceliae*. *Dianthidium dubium*. *Dianthidium pudicum*. *Megachile angularum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*. *Megachile gentilis*. Flat-tailed Leafcutter Bee (*Megachile mendica*). Alfalfa Leaf-cutter (*Megachile rotundata*). *Osmia aglaia*. *Osmia granulosa*. *Osmia malina*. *Osmia potentillae*. *Osmia visenda*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years, rare in another.

Phacelia rattanii. **Rattan's Phacelia**. May-July.

Bees: 2 bees extremely abundant, one a *Panurginus* sp. (Andrenidae) (Moldenke).

Phacelia suaveolens. **Sweetscented Phacelia**. May-June.

Phacelia tanacetifolia. **Beefood**. March-May.

Bees: Andrenidae: Golden-haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) – (M & N) (fq). Lonely Miner (*Andrena sola*). *Andrena w-scripta*. *Calliopsis obscurella*. *Panurginus nigrellus*. Apidae: California Digger (*Anthophora californica*). Edward's Digger (*Anthophora edwardsii*). Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Fog-belt Bumblebee (*Bombus caliginosus*). Black-tailed Bumblebee (*Bombus melanopygus*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*). *Melissodes tepida timberlakei*. California Carpentera

Bee (*Xylocopa californica*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Colletidae: *Colletes californicus*. Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hyleus polifolii*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). *Dufourea mulleri* [M & N – fq]. Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus*. *Lasioglossum* spp. (undetermined). *Lasioglossum incompletum*. *Lasioglossum nigrescens* (M & N). *Lasioglossum olympiae*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Megachilidae: *Anthidium collectum*. Utah Wool-carder Bee (*Anthidium utahense*). *Chelostoma minutum*. *Chelostoma phaceliae*. White-faced Summer Mason Bee (*Hoplitis albifrons*). *Hoplitis fulgida platyura*. Apical Leafcutter Bee (*Megachile apicalis*). Pale Leaf-cutting Bee (*Megachile concinna*). Alfalfa Leaf-cutter (*Megachile rotundata*). *Osmia aglaia*. Blue Mason Bee (*Osmia cyanella*). *Osmia granulosa*. *Osmia guadosa*. Happy Mason Bee (*Osmia laeta*). Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). Little Queen Mason Bee (*Osmia regulina*). *Osmia rostrata*.

UC Bee Lab garden study finds it a great pollen source. Got bumblebees, Andrenid bees, *Osmia* mason bees, honeybees and *Ceratina* especially.

Philadelphus lewisii. **Wild Mock Orange**. May-June.

Bees: Andrenidae: Orange-banded *Andrena* (*Andrena prunorum*).

Phlox speciosa. **Showy Phlox**. April-June.

Calflora notes many insects associated with it; I have no specific records.

Pholistoma auritum. *Nemophila aurita*. **Blue Fiesta-flower**. March-May.

Bees: Andrenidae: *Andrena macrocephala* – (M & N) (fq). *Andrena nemophilae* (N & M).
Apidae: California Mountain Digger (*Hapropoda depressa*). Colletidae: *Colletes californicus* (M & N). *Colletes consors pascoensis* (M & N). Vertical Masked Bee (*Hylaeus verticalis*) (M & N).
Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Chelostoma californicum*. *Osmia aglaia*. *Osmia glauca*. Blue Orchard Bee (*Osmia lignaria*).

For bee visitation observations, this species was the 18th most popular in 2011, but not in the top 25 most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as common in two years, uncommon one year, rare in two other years.

Pholistoma membranaceum. **White Fiesta Flower**. February-May.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year, rare in two other years.

Pholistoma racemosum. *Nemophila racemosa*. **San Diego Fiesta Flower**. February-May. [A late addition to the plant list; other bees likely. There is merely a very small disjunct population in our area].

Bees: *Andrena viridissima* (M & N).

Phoradendron. **Mistletoe**.

Good support for Honeybee (*Apis mellifera*)s as a nectar source.

Phoradendron leucarpum. *Phoradendron flavescens*. *Phoradendron flavescens villosum*. **American Mistletoe**.

Bees: Andrenidae: *Andrena orthocarpi* (M & N).

Phoradendron leucarpum subsp. *tomentosum*. *Phoradendron villosum*. **Mistletoe**. December-March.

Bees: Andrenidae: *Andrena vandykei* (M & N).

Phyla lanceolata. *Lippia lanceolata*. **Lanceleaf Fogfruit**. May-November.

Bees: Apidae: *Melissodes tepida timberlakei*. Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Halictus ligatus*. *Lasioglossum incompletum* (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*.

Flies: Syrphidae: Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Phyla nodiflora. *Phyla nodiflora* var. *rosea*. **Frogfruit**. May-June.

Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Honeybee (*Apis mellifera*). Prickly Ceratina (*Ceratina acantha*). *Diadasia consociata* – (M & N) (fq). *Melissodes tepida timberlackei*. *Nomada formula* (M & N). Colletidae: *Hylaeus conspicuus*. Halictidae: *Agapostemon femoratus* (M & N). *Dieunomia nevadensis* (M & N). *Halictus ligatus*. *Halictus tripartitus* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum tegulariforme*. Megachilidae: *Ashmeadiella aridula astragli*. Apical Leafcutter Bee (*Megachile apicalis*). Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*. *Megachile gentilis*. *Megachile texana*. Little Queen Mason Bee (*Osmia regulina*).

Physocarpus sp. **Ninebark**.

Bees: Andrenidae: *Andrena candidiformis*. Megachilidae: *Anthidium banningense*.

Physocarpus capitatus. **Pacific Ninebark**. May-June.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N).

Pickeringia montana. **Chaparral Pea**. May-August.

Bees: Apidae: Fog-belt Bumblebee. Edward's Bumblebee. Yellow-faced Bumblebee (*Bombus vosnesenskii*). Colletidae: Episcopal Masked Bee (*Hylaeus episopalis*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: *Halictus tripartitus*. Megachilidae: Elderberry Summer Mason Bee (*Hoplitis sambuci*). *Osmia cobaltina*. Blue Mason Bee (*Osmia cyanella*). *Osmia gabrielis*.

Pinus sabiniana. **Gray Pine**. February-March.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Plagiobothrys sp. Some now *Allocarya*.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena chapmanae* (M & N). *Andrena escondida*. Alice's *Andrena* (*Andrena mackieae*). *Andrena pensilis*. *Perdita nitens*. Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). *Eucera zonata* (M & N). Halictidae: *Lasioglossum incompletum* (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

Plagiobothrys acanthocarpus. *Allocarya acanthocarpa*. **Adobe Allocarya**. February-March.

Plagiobothrys arizonicus. **Arizona Popcornflower**. February-May.

Plagiobothrys austiniae. *Allocarya austiniae*. **Rebecca Austin's Allocarya**. March-May

Plagiobothrys bracteatus. **Bracted Popcornflower**. April-May.

Plagiobothrys canescens. **Valley Popcornflower**. March-May.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon.

Plagiobothrys chorisianus. **Artist's Popcornflower**. March-June.

Plagiobothrys chorisianus var. *hickmanii*. *Allocarya chorisana* var. *hickmanii*. **Hickman's Popcornflower**. April-June.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Plagiobothrys cognatus. *Plagiobothrys scouleri* var. *penicillatus*. *Plagiobothrys scouleri* var. *hispidulus*. **Sleeping Popcorn Flower**. May-August.

Plagiobothrys collinus. **Cooper's Popcornflower**. February-May.

Andrenidae: *Andrena atypica*. *Andrena dissimulans*. Lonely Miner (*Andrena sola*).

Plagiobothrys collinus var. californicus. *Plagiobothrys californicus*. *Allocarya cooperi*. *Allocarya californica* var. *minuta*. **Cooper's Popcornflower**. February-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). *Andrena osmioides* (M & N). Lonely Miner (*Andrena sola*) (M & N). Apidae: Edward's Digger (*Anthophora edwardsii*) (M & N). *Eucera actiosa* (M & N). Crotch's Nomad (*Nomada crotchii nigrior*) (M & N).

Plagiobothrys cusickii. *Plagiobothrys scouleri* var. *cusickii*. **Cusick's Popcorn Flower**. May-August.

Plagiobothrys diffusus. **San Francisco Popcorn Flower**. March-June.

Plagiobothrys fulvus. **Common Popcorn Flower**. March-May.

Plagiobothrys fulvus var. *campestris*. *Plagiobothrys campestris*. **Fulvus Popcornflower**. March-May.

Plagiobothrys glaber. *Allocarya glaber*. *Allocarya salina*. **Hairless Popcornflower**. March-May.

Plagiobothrys greenei. *Allocarya greenei*. **Greene's Allocarya**. March-April.

Plagiobothrys hispidulus. *Plagiobothrys scouleri* var. *hispidulus*. **Harsh Allocarya**. May-August.

Plagiobothrys humistratus. *Allocarya humistrata*. *Allocarya humistrata* var. *humilis*. **Dwarf Allocarya**. February-March.

Plagiobothrys hystriculus. *Allocarya hystricula*. **Bearded Popcornflower**. April-May.

Plagiobothrys infectivus. **Dye Popcornflower**. March-May.

Plagiobothrys leptocladus. *Allocarya leptoclada*. *Plagiobothrys orthocarpus*. **Alkali Plagiobothrys**. March-July.

Plagiobothrys nothofulvus. **Popcornflower**. February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). *Andrena chapmanae*. *Andrena osmioides* (M & N). *Andrena pensilis*. Clover *Andrena* (*Andrena plana*). Halictidae: *Dufourea mulleri*. *Halictus tripartitus* (M & N). Megachilidae: *Chelostoma californicum*. *Protosmia rubifloris*.

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year.

Plagiobothrys reticulatus. **Netted Popcornflower**. May-July.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (M & N).

Plagiobothrys scouleri. **Scouler's Popcornflower**.

Plagiobothrys scriptus. *Allocarya scripta*. **Scribe's Allocarya**. February-April.

Plagiobothrys shastensis. **Shasta Popcornflower**. March-June.

Plagiobothrys stipitatus. *Allocarya stipitata*. **Vernal Pool Allocarya**. March-April.

Plagiobothrys stictus. *Allocarya stricta*. **Calistoga Popcornflower**. March-June.

Plagiobothrys tenellus. *Plagiobothrys asper*. **Pacific Popcornflower**. March-May.

Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). Mock-orange Miner Bee (*Andrena candida*) (M & N).

Plagiobothrys tener. *Allocarya gracilis*. *Allocarya pratensis*. **Slender Allocarya**. March-May.

Plagiobothrys torreyi. **Torrey's Popcornflower**. April-June.

Plagiobothrys trachycarpus. *Allocarya trachycarpa*. *Allocarya interrasilis*. **Rough Fruited Allocarya**. March-May.

Plagiobothrys undulatus. *Allocarya undulata*. *Plagiobothrys chorisianus* var. *undulatus*. **Coast Allocarya**. April-May.

Plagiobothrys verrucosus. *Plagiobothrys myosotoides* ssp. *verrucosus*. *Plagiobothrys myosotoides*. **Forget-me-not Popcornflower**. March-May.

Plantago erecta. *Plantago bigelovii*. **California Plantain**. March-April.

Bees: Apidae: *Melissodes tepida timberlakei* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Platystemon californicus. **Cream Cups**. February-May.

Bees: Andrenidae: *Andrena buccata* (M & N) (fq) – “Oligolectic on *Platystemon californicus*.” *Andrena crudeni*. Greenish Burrowing Bee (*Andrena cuneilabris*) – (M & N) (fq). *Andrena*

nigroclypeata (M & N). *Andrena orthocarpi*. Piper's Miner Bee (*Andrena piperi*) (M & N) (fq). *Andrena pulverea*. Lonely Miner (*Andrena sola*). *Andrena suavis* (M & N). *Andrena subchalybea* (M & N). *Andrena torulosa*. Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Delphinium Long-horned Bee (*Eucera delphinii*) (M & N). Halictidae: *Lasioglossum nigrescens* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Plectritis ciliosa. March-April.

Bees: Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N). Megachilidae: *Protosmia rubifloris*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Plectritis congesta. **Sea Blush**. March-June.

Bees: Apidae: Monk Longhorn (*Eucera frater*) (BugGuide).

Noted for butterfly visits.

Plectritis macrocera. **Longhorn Plectritis**. March-May.

Bees: Andrenidae: Small Green Miner Bee (*Andrena microchlora*) (M & N). Blue-and-Black *Andrena* (*Andrena nigroaerulea*). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Nomada* spp. (M & N). Halictidae: Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years.

Pluchea odorata. *Pluchea camphorata* (misapplied). **Sweetscent**. June-November.

Bees: Apidae: Great Northern Bumblebee (*Bombus fervidus*). Agile Long-horned Bee (*Melissodes agilis*) (M & N). *Melissodes appressus* (M & N). *Melissodes tepida timberlakei* (M & N). *Nomada formula* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus*). Halictidae: *Agapostemon femoratus* (M & N). Bicolored Striped Sweat Bee (*Agapostemon virescens*). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). [Pluchea sp. seems likely this one]. Alkali Bee (*Nomia melanderi*) (M & N0). Megachilidae: Flat-tailed Leafcutter Bee (*Megachile mendica*).

Pogogyne douglasii. **Douglas' Mesamint**. April-July.

Bees: Apidae: Striped Long-horned Bee (*Eucera virgata*) (M & N).

Pogogyne serpylloides. **Thymeleaf Mesamint**. March-May.

Bees: Apidae: Arizona Ceratina. (Moldenke).

Pogogyne zizphoroides. **Sacramento Mesamint**. April-May.

Polemonium sp. **Jacob's Ladder**.

Bees: Apidae: Red-belted Bumblebee (*Bombus rufocinctus*).

Polemonium carneum. **Great Polemonium**. April-September.

Calflora notes bumblebees as visitors to this species.

Polygala californica. **California Milkwort**. April-June.

Polygonum sp. Many now *Persicaria*. (With name changes, bee correlations tentative).

Bees: Andrenidae: Piper's Miner Bee (*Andrena piperi*). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*). Apidae: Great Northern Bumblebee (*Bombus fervidus*). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). Flat-tailed Leafcutter Bee (*Megachile mendica*).

Polygonum douglasii. **Douglas' Knotweed**. June-September.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). *Ceratina tejonensis*. *Melissodes microstictus*. Yellow-breasted Cuckoo Nomad Bee (*Triepeolus paenepectoralis*). Megachilidae: Northern Rotund-Resin Bee (*Anthidellum notatum*). *Ashmeadiella cactorum*. *Dianthidium ulkei*. *Megachile angelarum*.

Polygonum paronychia. **Beach Knotweed**. March-September.

Bees: Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus oregonensis*) (M & N). *Hylaeus maritimus* (M & N). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*). *Osmia integra* fq.

Potentilla sp. Re-assignments or alternate names of some of these now include Argentina, *Dasiphora*, *Drymocallis*, and *Horkelia*.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena birtwelli* (M & N) (fq) – “Specific to *Potentilla* for pollen.” Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) – (M & N) (fq). Apidae: California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Ceratina micheneri* (M & N). Pacific

Little Carpenter Bee (*Ceratina pacifica*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus oregonensis*) (M & N). Kincaid's Cellophane Bee (*Colletes kincaidii*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus virgatellus*. Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*).

Potentilla anserina *Argentina anserina*. **Silverweed**. March-May.

Bees: Andrenidae: Sandpit Mining Bee (*Andrena barbilabris*). *Andrena birtwelli*. Hippotes's Miner Bee (*Andrena hippotes*). *Andrena w-scripta*.

Potentilla anserina ssp. *pacifica*. *Argentina egedei*. *Potentilla egedei*. **Silverweed**. March-May. This is the form for our area and most of the state.

Bees: Apidae: Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Potentilla gracilis. **Northwest Cinquefoil**. June-July. Approaches our area closely.

Bees: Andrenidae: *Andrena birtwelli*. Halictidae: *Lasioglossum tegulariforme* (M & N).

Primula clevelandii. *Dodecatheon clevelandii*. **Padre's Shooting Star**. March-April.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Primula clevelandii var. *gracilis*. *Dodecatheon clevelandii* ssp. *sanctarum*. **Padre's Shooting Star**. March-April.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Primula clevelandii var. *patulum*. **Padre's Shooting Star**. March-April.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Primula hendersonii. *Dodecatheon hendersonii*. *Dodecatheon hendersonii* ssp. *cruciatum*. *Dodecatheon hendersonii* subs. *hanseni*. **Mosquito Bill**. February-April.

Bees: Apidae: Black-tailed Bumblebee (*Bombus melanopygus*) (Flora, Fall 2020). *Eucera actiosa* (M & N).

Prunella vulgaris. **Self-heal**. July-August.

Bees: Andrenidae: Orange-banded *Andrena* (*Andrena prunorum*). Apidae: California Bumblebee (*Bombus californicus*). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted

Bumblebee (*Bombus flavifrons*). Yellow-faced Bumblebee (*Bombus vosnesenskii*).
Megachilidae: Flat-tailed Leafcutter Bee (*Megachile mendica*). Dense-haired Mason Bee (*Osmia densa*).

Prunella vulgaris var. *lanceolata*. **Mountain Selfheal**. July-August.

Bees: Apidae: Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Prunus sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Sandpit Mining Bee (*Andrena barbilabris*) (M & N) (fq). *Andrena bucculenta* (M & N). *Andrena chapmanae* (M & N). *Andrena chlorura*. *Andrena cleodora* (M & N). Copper-tinted Miner Bee (*Andrena cupreotincta*) (M & N). *Andrena forbesii* (M & N) (fq). Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). Hippotes's Miner Bee (*Andrena hippotes*) – (M & N) (fq). Western Red-legged Miner Bee (*Andrena medionitens*). Miserable *Andrena* (*Andrena miserabilis*) (M & N) (fq). *Andrena nivalis*. *Andrena perimelas* (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena striatifrons*. Subtle Miner Bee (*Andrena subtilis*). *Andrena vicinoides*. *Andrena vierecki*. *Andrena w-scripta*. Apidae: Edward's Digger (*Anthophora edwardsii*) (M & N). *Anthophora neglecta*. Black-notched Bumblebee (*Bombus bifarius*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Crotch's Nomad (*Nomada crotchii*). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: *Osmia inurbana*.

Prunus emarginata. **Bitter Cherry**. April-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Rose Miner Bee (*Andrena melanochoa*). *Andrena orthocarpi*. Shifty Miner Bee (*Andrena saccata*). *Andrena transnigra*. Apidae: Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Ceratina tejonensis*. Colletidae: *Hylaeus nunenmacheri* (M & N). Halictidae: *Lasioglossum olympiae* (M & N).

Prunus ilicifolia. **Hollyleaf Cherry**. February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) – (M & N) (fq). *Andrena atypica* (M & N). Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*). Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). Willow Mining Bee (*Andrena salicifloris*) (M & N) (fq). *Andrena w-scripta* (M & N) (fq). Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). *Eucera actiosa* (M & N). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Halictus*

tripartitus (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum olympiae* (M & N). *Lasioglossum pacificum* (M & N). Sphecodes #52 (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*). Mellitidae: *Hesperapis ilicifoliae* (M & N).

Moldenke got 23 bee species out of 33 insects in his survey.

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year, uncommon in one year, and rare in two years.

Prunus subcordata. **Klamath Plum**. February-March.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*) (M & N). *Andrena candidiformis* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). *Andrena chlorura*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Piper's Miner Bee (*Andrena piperi*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena santaclarae*. *Andrena scura*. Lonely Miner (*Andrena sola*). Subtle Miner Bee (*Andrena subtilis*). *Andrena vierecki*. *Perdita quadrisignata*. Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Colletidae: Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Lasioglossum cooleyi* (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Prunus virginiana. *Prunus demissa*. *Prunus melanocarpa*. **Choke Cherry**. April-May.

Bees: Andrenidae: *Andrena amphibola*. Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Sandpit Mining Bee (*Andrena barbilabris*). *Andrena buckelli*. *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*). Yellow-legged Miner Bee (*Andrena cressonii*). Copper-tinted Miner Bee (*Andrena cupreotincta*). *Andrena forbesii* – (M & N) (fq). Hippotes's Miner Bee (*Andrena hippotes*). *Andrena knuthiana*. Lupine Miner Bee (*Andrena lupinorum*). Small Green Miner Bee (*Andrena microchlora*). Alice's *Andrena* (*Andrena mackieae*). Western Red-legged Miner Bee (*Andrena medionitens*). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena nivalis*. Pale-faced Miner Bee (*Andrena pallidifovea*). Orange-banded *Andrena* (*Andrena prunorum*). Subtle Miner Bee (*Andrena subtilis*). Topaz Miner Bee (*Andrena topazana*). *Andrena transnigra*. *Andrena vicinoides*. *Andrena vierecki*. *Andrena w-scripta*. Apidae: Black-notched Bumblebee (*Bombus bifarius*). Great Northern Bumblebee (*Bombus fervidus*). Prickly Ceratina (*Ceratina acantha*). Pacific Little Carpenter Bee (*Ceratina pacifica*). Brother Long-horned Bee (*Eucera frater*). Ashy Digger Bee (*Habropoda cineraria*). Colletidae: *Colletes consors*. Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*. Megachilidae: *Megachile montivaga*. Blue Orchard Bee (*Osmia lignaria*). *Osmia penstemonis*.

Flies: Syrphidae: *Sphecomyia vittata* (GBIF). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Pseudognaphalium sp. **Cudweeds**. Most were formerly assigned to *Gnaphalium* (which see).

Pseudognaphalium beneolens. Gnaphalium beneolens. Gnaphalium canescens ssp. beneolens. **Cudweed**.

Bees: Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Lasioglossum tegulariforme* (M & N).

Pseudognaphalium biolettii. Pseudognaphalium bicolor. Gnaphalium bicolor. **Two-color Rabbit-tobacco**. January-May.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*) (M & N). Halictidae: *Lasioglossum nigrescens* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Pseudognaphalium californicum. Gnaphalium californicum. **Ladies' Tobacco**. January-July.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Colletidae: *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum tegulariforme*. Megachilidae: Big-cheeked Mason Bee (*Ashmeadiella buconis*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

All *Pseudognaphalium* serve as caterpillar forage for American Lady butterfly, which specializes on eating plants in the tribe to which they belong.

Pseudognaphalium canescens. Gnaphalium canescens. Gnaphalium wrightii. **Wright's Cudweed**. July-September.

Bees: Megachilidae: *Anthidium maculosum*. *Heriades occidentalis*.

Pseudognaphalium microcephalum. Gnaphalium microcephalum. **Wright's Cudweed**. July-October.

Pseudognaphalium ramosissimum. Gnaphalium ramosissimum. **Pink Cudweed**. June-August.

Pseudognaphalium stramineum. Gnaphalium chilense. **Cottonbatting Plant**. May-October.

Bees: Halictidae: *Lasioglossum tegulariforme* (M & N).

Pseudognaphalium thermale. *Gnaphalium thermale*. **Small-headed Cudweed**. June-September.

Bees: Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Halictidae: *Lasioglossum tegulariforme* (M & N).

Pteridium aquilinum var. *pubescens*. **Hairy Brackenfern. Western Bracken Fern**.

Bees: Apidae: Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Pterostegia drymarioides. **Fairy Mist**. February-July.

Bees: Halictidae: *Lasioglossum tegulariforme* (M & N).

Pyrus sp. Our native crabapple formerly assigned to this genus.

Bees: Andrenida: *Andrena forbesii* (M & N) (fq). Hippotes's Miner Bee (*Andrena hippotes*) (M & N) (fq). Apidae: Van Dyke's Bumblebee (*Bombus vandykei*) (M & N).

Quercus sp. **Oaks**.

Bees: Andrenidae: *Andrena atypica*. *Andrena chlorura*. Pale-faced Miner Bee (*Andrena pallidifovea*). Lonely Miner (*Andrena sola*) (M & N). Apidae: Ashy Digger Bee (*Habropoda cineraria*). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*).

Flies: Syrphidae: *Lapposyrphus* spp. (*Correa*). *Syrphus ribesii* (*Correa*).

Quercus agrifolia. **Coast Live Oak**. February-April.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena hypoleuca*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Apidae: Good support for Honeybee (*Apis mellifera*) as a pollen source.

For bee visitation observations, this species was the 15th most popular in 2011, but not in the top 25 most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon to rare.

Quercus chrysolepis. **Canyon Live Oak**. May-June.

Bees: Apidae: California Mountain Digger (*Habropoda depressa*). Halictidae: *Lasioglossum nevadense* (M & N).

Quercu douglasi. **Blue Oak**. March-May.

Good support for Honeybee (*Apis mellifera*) as a pollen source.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Quercus dumosa. **Nuttall's Scrub Oak**. February-March.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*). Dark-tailed *Andrena* (*Andrena fuscicauda*). *Andrena hypoleuca*. Halictidae: *Lasioglossum mellipes* (M & N). *Lasioglossum nigrescens* (M & N).

Quercus kelloggii. **Black Oak**. May-June.

Quercus lobata. **Valley Oak**. February-March.

Good support for Honeybee (*Apis mellifera*) as a pollen source.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Quercus wislizeni. **Interior Live Oak**. March-May.

Bees: Megachilidae: *Ashmeadiella sonora*.

Rafinesquia sp.

Bees: Andrenidae: *Calliopsis obscurella*.

Rafinesquia californica. **California Chicory**. April-July.

Bees: Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). Titus' *Lasioglossum* (*Lasioglossum titusi*). Megachilidae: *Megachile gentilis*.

Ranunculus sp. **Buttercups**. There are also non-native species.

Bees: Andrenidae: *Andrena algida*. *Andrena angustella*. Golden-Haired Miner Bee (*Andrena auricoma*). *Andrena birtwelli*. Caerulean Minger Bee (*Andrena caerulea*) fq – (M & N) “Oligolectic on *Ranunculus* species, particularly *Ranunculus californicus*.” *Andrena cercocarpi*. Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorosoma*. (M & N) “nectars profusely on *Ranunculus*.” *Andrena chlorura*. Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena crudeni*. Greenish Burrowing Bee (*Andrena cuneilabris*) – (M & N) (fq) “Oligolectic on *Ranunculus*.” *Andrena hypoleuca*. Western Red-legged Miner Bee (*Andrena medionitens*). Rose Miner Bee (*Andrena melanochroa*) (M & N). Small Green Miner Bee (*Andrena microchlora*). *Andrena misella*. *Andrena nigrihirta*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena nivalis*. *Andrena orthocarpi*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena pensilis*.

Andrena perimelas (M & N). Clover *Andrena* (*Andrena plana*). *Andrena pulverea*. Willow Mining Bee (*Andrena salicifloris*) (M & N). Lonely Miner (*Andrena sola*) (M & N). *Andrena striatifrons* (M & N). *Andrena suavis* fq – (M & N) “Oligolege of *Ranunculus*.” Subtle Miner Bee (*Andrena subtilis*). *Andrena thaspi*. Topaz Miner Bee (*Andrena topazana*). *Andrena transnigra* (M & N). *Panurginus melanocephalus* (M & N) “Oligolege of *Ranunculus*.” *Panurginus nigrellus* (M & N). *Panurginus occidentalis*. Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). Edward’s Bumblebee (*Bombus edwardsii*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Clarkia Ceratina* (*Ceratina sequoiae*) (M & N). *Eucera lunata* (M & N). *Nomada articulata*. California Carpenter Bee (*Xylocopa californica*) (M & N). Colletidae: Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N) (fq). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N) (fq). *Halictus tripartitus* (M & N). *Halictus virgatellus*. *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). Titus’ *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: Golden-tailed Leafcutter (*Megachile relativa*). *Osmia paradisica*.

Ranunculus aquatilis. **White Water Crowfoot**. April-July.

Ranunculus californicus. **California Buttercup**. February-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) – (M & N) (fq). Golden-Haired Miner Bee (*Andrena auricoma*). Caerulean Mining Bee (*Andrena caerulea*) fq. Mock-orange Miner Bee (*Andrena candida*) (M & N). *Andrena candidiformis* (M & N). *Andrena chalybaea* (M & N). *Andrena chalyboides* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorosoma*. Yellow-legged Miner Bee (*Andrena cressonii*). Greenish Burrowing Bee (*Andrena cuneilabris*) – (M & N) (fq).. *Andrena hypoleuca*. Small Green Miner Bee (*Andrena microchlora*) (M & N). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) – (M & N) (fq). *Andrena orthocarpi* – (M & N) (fq). *Andrena pensilis* (M & N). *Andrena perimelas* (M & N). Piper’s Miner Bee (*Andrena piperi*) (M & N). *Andrena suavis* fq. *Andrena subchalybea* (M & N). *Andrena subdepressa*. Subtle Miner Bee (*Andrena subtilis*). *Andrena w-scripta* (M & N). *Panurginus melanocephalus* (M & N). *Panurginus nigrihirtus*. Apidae: Honeybee (*Apis mellifera*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). *Eucera actiosa* (M & N). Colletidae: Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). Cordley’s Long-horned Bee (*Eucera cordleyi*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). *Halictus tripartitus*. *Lasioglossum allonotus* (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum olympiae* (M & N). *Lasioglossum orthocarpi* (M & N). *Lasioglossum pacificum* (M & N). *Lasioglossum pullilabre* (M & N). Titus’ *Lasioglossum* (*Lasioglossum titusi*) (M & N). *Lasioglossum viridulatum* (M & N). [some or all may well refer to *Ranunculus canus*; closely related buttercups, this is the one in Berkeley, where many bee collections have been made].

In a Pinnacles National Monument survey this species proved the 7th most popular species with

bees in 2011 and 24th most popular in 2012.

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year, uncommon in two years, and rare in one year.

Flies: Syrphidae: Calligrapher Fly (*Toxomerus marginatus*) (Correa) (fq). *Toxomerus occidentalis* (Correa) (fq).

Ranunculus canus. **Sacramento Valley Buttercup**. March-July.

Bees: Andrenidae: *Andrena viridissima* (M & N). Apidae: *Nomada lepida*. *Nomada melliventris*. *Nomada obscura*.

Ranunculus hebecarpus. **Delicate Buttercup**. March-May.

Ranunculus lobbii. **Lobb's Aquatic Buttercup**. February-May.

Ranunculus occidentalis. **Western Buttercup**. February-May.

Bees: Andrenidae: *Andrena amphibola*. Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Caerulean Mining Bee (*Andrena caerulea*) fq. *Andrena chalybioides*. Greenish Burrowing Bee (*Andrena cuneilabris*) fq. Rose Miner Bee (*Andrena melanochroa*). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena orthocarpi*. *Panurginus atriceps*. Apidae: Honeybee (*Apis mellifera*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera lunata* (M & N). Colletidae: *Hylaeus nunenmacheri* (M & N).

Ranunculus orthorhynchus. **Bloomer's Buttercup**. **Straightbeak Buttercup**. March-May.

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*) fq. *Andrena chalyboides* (M & N). Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N) (fq). Halictidae: *Halictus virgatellus*.

Rhamnus sp. Might nowadays also refer to *Frangula*.

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*). *Andrena candidiformis* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). Alice's *Andrena* (*Andrena mackieae*) (M & N). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Eucera actiosa* (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N) (fq). Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Halictidae: *Halictus tripartitus* (M & N). *Lasioglossum nigrescens* (M & N).

Rhamnus crocea. **Redberry**. February-March.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica*. Golden-

Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*) – (M & N) (fq). Cherry Plum Miner (*Andrena cerasifolii*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorura*. Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). Alice's *Andrena* (*Andrena mackieae*). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena orthocarpi*. *Andrena puthua* (M & N). Lonely Miner (*Andrena sola*). *Andrena vandykei* (M & N). *Panurginus atriceps*. *Panurginus gracilis*. *Panurginus nigrellus*. Apidae: Black-tailed Bumblebee (*Bombus melanopygus*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*). Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Vertical Masked Bee (*Hylaeus verticallis*). Halictidae: *Lasioglossum cordleyi* (M & N). *Lasioglossum tegulariforme* (M & N). Sphecodes #54 (M & N). Megachilidae: *Ashmeadiella salviae*. Blue Orchard Bee (*Osmia lignaria*).

Hemiptera: Pleasant Plant Bug (*Closterocoris amoenus*).

Rhamnus ilicifolia. **Hollyleaf Redberry**. April-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Mock-orange Miner Bee (*Andrena candida*). *Andrena chlorura*. Colletidae: Yerba Santa Masked Bee (*Hylaeus calvus*). Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year, uncommon in one year, and rare in three years.

Rhamnus rubra. **Red Buckthorn**. May-July.

Bees: Andrenidae: Copper-tinted Miner Bee (*Andrena cupreotincta*) (M & N). Colletidae: Vertical Masked Bee (*Hylaeus verticalis*) (M & N).

Rhododendron sp.

Bees: Andrenidae: Miserable *Andrena* (*Andrena miserabilis*). *Andrena nivalis*. Apidae: California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*) (M & N). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Striped Long-horned Bee (*Eucera virgata*) (M & N) (fq). Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*). Orange-legged Furrow Bee (*Halictus rubicundus*). Megachilidae: *Megachile gemula*. *Megachile melanophaea*. Alfalfa Leaf-cutter (*Megachile rotundata*). Bufflehead Mason Bee (*Osmia bucephala*). Dense-haired Mason Bee (*Osmia densa*). Blue Orchard Bee (*Osmia lignaria*). *Osmia*

juxta.

Rhododendron columbianum. Ledum glandulosum. **Labrador Tea**. May-August.

Bees: Andrenidae: Andrena ceanothifloris cretata. Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Rhododendron macrophyllum. **California Rosebay**. March-May.

Bees: Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Sitka Bumblebee (*Bombus sitkensis*).

Rhododendron occidentale. **Western Azalea**. May-June.

Bees: Andrenidae: Andrena nigrihirta. Apidae: California Bumblebee (*Bombus californicus*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum mellipes* (M & N).

Rhus sp. **Sumac**. Poison oak is now *Toxicodendron*.

Bees: Andrenidae: Andrena chlorura. Copper-tinted Miner Bee (*Andrena cupreotincta*) (M & N). Orange-banded Andrena (*Andrena prunorum*) (M & N). *Andrena w-scripta*. Panurginus atriceps (M & N). Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Great Northern Bumblebee (*Bombus fervidus*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). *Ceratina punctigena* (M & N). Colletidae: Colorado Yellow-faced Bee (*Hylaeus coloradensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*. *Lasioglossum* sp. *Lasioglossum allonotus* (M & N). Mergachilidae: *Heriades occidentalis*. *Hoplitis producta*. *Osmia montana*.

Rhus aromatica. *Rhus trilobata*. **Fragrant Sumac**. March-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). Cherry Plum Miner (*Andrena cerasifolii*). *Andrena chlorura*. Dark-tailed Andrena (*Andrena fuscicauda*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorura*. Dark-tailed Andrena (*Andrena fuscicauda*). *Andrena lomatii*. *Andrena macrocephala* (M & N). *Andrena melanochroa*. Miserable Andrena (*Andrena miserabilis*). *Andrena orthocarpus*. Clover Andrena (*Andrena plana*) Orange-banded Andrena (*Andrena prunorum*). Lonely Miner (*Andrena sola*). *Andrena suavis*. *Andrena w-scripta*. Apidae: Crotch's Digger (*Anthophora crotchii*). *Anthophora neglecta*. Arizona Ceratina (*Ceratina*

arizonensis) (M & N). *Eucera angustifrons* (M & N). *Habropoda depressa*. Crotch's Nomad (*Nomada crotchii nigrior*) (M & N). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Peridot Bee (*Augochlorella pomoniella*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Megachilidae: *Ashmeadiella bigeloviae*. Short Mason Bee (*Osmia brevis*). *Osmia glauca*. *Protosmia rubifloris*.

Flies: Syrphidae: *Syrphus ribesii* (Hilty).

Ribes sp. Some formerly assigned to *Grossularia*. **Currant or Gooseberry.**

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-haired Miner Bee (*Andrena auricoma*). Caerulean Miner Bee (*Andrena caerulea*). *Andrena caliginosa* (M & N) "Perhaps oligolectic on *Ribes*." *Andrena ceanothifloris* (M & N). *Andrena ceanothifloris cretata*. Cherry Plum Miner (*Andrena cerasifolii*). *Andrena chlorura*. *Andrena cleodora* (M & N). Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena cristata*. Copper-tinted Miner Bee (*Andrena cupreotincta*). *Andrena edwardsi*. *Andrena frigida*. *Andrena hemileuca*. Hippotes's Miner Bee (*Andrena hippotes*). *Andrena latifrons*. *Andrena nevadensis*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena obscuripostica*. Piper's Miner Bee (*Andrena piperi*). Orange-banded *Andrena* (*Andrena prunorum*). Willow Mining Bee (*Andrena salicifloris*). *Andrena submaura* – (M & N) "Probably oligolectic on *Ribes*." Subtle Miner Bee (*Andrena subtilis*). *Andrena transnigra* (fq). *Andrena washingtoni*. Apidae: Edward's Digger (*Anthophora edwardsii*). Pacific Digger (*Anthophora pacifica*) (M & N). Urbane Digger (*Anthophora urbana*) (M & N). Bear-like Digger Bee (*Anthophora ursina*). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Sitka Bumblebee (*Bombus sitkensis*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acanatha*). Ashy Digger Bee (*Habropoda cineraria*). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). Separated Cuckoo Bee (*Melecta separata*). *Nomada* sp. (M & N). Colletidae: Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Orange-legged Furrow Bee (*Halictus rubicundus*). *Lasioglossum allonotus* (M & N). *Lasioglossum mellipes* (M & N). Megachilidae: *Ashmeadiella* sp. Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*). Large Indigo Mason Bee (*Osmia atrocyanea*). California Mason Bee (*Osmia californica*). Dense-haired Mason Bee (*Osmia densa*). *Osmia juxta*. Blue Orchard Mason Bee (*Osmia lignaria*). *Osmia marginipennis*. *Osmia montana*.

Ribes amarum. *Ribes mariposanum*. *Grossularia amara*. **Bitter Gooseberry.** March-June.

Ribes aureum. **Golden Currant.** February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Hippotes's Miner Bee (*Andrena hippotes*). Orange-banded Andrena (*Andrena prunorum*). *Andrena thaspi*. Apidae: Edward's Digger (*Anthophora edwardsii*). Pacific Digger (*Anthophora pacifica*). Bear-like Digger Bee (*Anthophora ursina*). Edwards's Long-horned Bee (*Eucera edwardsii*). Ashy Digger Bee (*Habropoda cineraria*). Halictidae: *Halictus tripartitus*. Megachilidae: *Osmia inurbana*. Blue Orchard Bee (*Osmia lignaria*). *Osmia nifoata*.

Ribes aureum var. *gracillimum*. *Ribes gracillimum*. **Yellow Currant**. February-April.

Ribes californicum. *Ribes californica*. *Grossularia californica*. **California Gooseberry**. January-March.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Halictidae: Peridot Bee (*Augochlorella pomoniella*).

Ribes divaricatum. *Grossularia divaricata*. **Spreading Gooseberry**. March-May.

Ribes inerme. **Whitestem Gooseberry**. April-May.

Bees: Andrenidae: *Andrena algida*. Copper-tinted Miner Bee (*Andrena cupreotincta*) (M & N). *Andrena hemileuca*.

Ribes malvaceum. **Chaparral Currant**. December-March.

Bees: Apidae: Pacific Digger (*Anthophora pacifica*) (M & N). *Diadasia laticauda*. Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Ribes menziesii. **Canyon Gooseberry**. January-March.

Bees: Apidae: Fog-belt Bumblebee. Megachilidae: Blue Orchard Bee (*Osmia lignaria*).

Ribes quercetorum. **Oak Gooseberry**. February-March.

Bees: Apidae: Pacific Digger (*Anthophora pacifica*).

Ribes roezlii . **Sierra Gooseberry**. February-June.

Bees: Andrenidae: *Andrena hemileuca*. Apidae: Bear-like Digger Bee (*Anthophora ursina*). Colletidae: Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Halictidae: *Lasioglossum mellipes* (M & N). Megachilidae: Large Indigo Mason Bee (*Osmia atrocyanea*). Short Mason Bee (*Osmia brevis*). Dense-haired Mason Bee (*Osmia densa*). *Osmia latisulcata*. Blue Orchard Mason Bee (*Osmia lignaria*). *Protosmia rubifloris*.

Ribes sanguineum. **Red Flowering Currant**. January-May.

Bees: Andrenidae: *Andrena cressonii* n. *Andrena hemileuca* n. Rose Miner Bee (*Andrena melanochroa*). Apidae: Honeybee (*Apis mellifera*) n. Pacific Digger (*Anthophora pacifica*). Black-tailed Bumblebee (*Bombus melanopygus*). Sitka Bumblebee (*Bombus sitkensis*) n. Yellow-faced Bumblebee (*Bombus vosnesenskii*) n. *Nomada oregonica*. Megachilidae: Blue Orchard Bee (*Osmia lignaria*) n. *Osmia penstemonis*. Small Indigo Mason Bee (*Osmia tristella*). Melittidae: Clarkia Evening Bee (*Hesperapis regularis*).

Flies: Greater Bee-fly (*Bombylius major*) n.

Ribes speciosum. **Fuchsia-flowered Gooseberry**. January-May.

Flowers with strong appeal to hummingbirds.

Rorippa curvipes. **Bluntleaf Yellowcress**. May-September.

Rorippa curvisiliqua. **Western Yellowcress**. May-August.

Rorippa palustris. **Bog Yellowcress**. April-June.

Rosaceae. Rose Family.

Andrenidae: *Andrena forbesii* (M & N) (fq) “Oligolege of shrubby Rosaceae (e.g. *Prunus*, *Crataegus*, *Pyrus*, *Rubus*, and *Amelanchier*), abundantly found on *Salix*, too.” Western Red-legged Miner Bee (*Andrena medionitens*) (M & N) “Polylectic apparently with emphasis on Rosaceae.” Miserable *Andrena* (*Andrena miserabilis*) (M & N) (fq) “Apparently polylectic, with emphasis on shrubby Rosaceae.”

Rosa sp. **Rose**.

Bees: Andrenidae: Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena forbesii*. Hippotes’s Miner Bee (*Andrena hippotes*). Miserable *Andrena* (*Andrena miserabilis*). *Andrena nigrihirta*. *Andrena nivalis*. *Andrena thaspi*. *Andrena transnigra*. *Andrena vicinoides*. Apidae: Urbane Digger (*Anthophora urbana*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward’s Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Prickly *Ceratina* (*Ceratina acantha*) (M & N). *Diadasia nitidifrons* (M & N). *Melissodes tepida timberlakei* (M & N). Colletidae: *Colletes consors*. Mesilla Masked Bee (*Hylaeus mesillae*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*). Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus* (M & N). Megachilidae: *Hoplitis producta*. *Megachile melanophaea*. Flat-tailed Leafcutter Bee (*Megachile mendica*). Bufflehead Mason Bee (*Osmia bucephala*).

Flies: Syrphidae: Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Rosa californica. **California Rose**. May-August.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*). Honeybee (*Apis mellifera*). Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly Ceratina (*Ceratina acantha*). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis giffardiellus*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Halictus tripartitus* (M & N). Megachilidae: Western Leafcutter (*Megachile perihirta*). Western Forest Mason Bee (*Osmia nemoris*).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon one year and rare in two years.

Rosa gymnocarpa. **Wood Rose**. May-June.

Bees: Andrenidae: Shifty Miner Bee (*Andrena saccata*). Apidae: Fuzzy-horned Bumblebee (*Bombus mixtus*).

Rosa nutkana. **Nootka Rose**. May-June.

Bees: Andrenidae: *Andrena nivalis*. Shifty Miner Bee (*Andrena saccata*). Willow Mining Bee (*Andrena saliciflorus*). Topaz Miner Bee (*Andrena topazana*). *Andrena washingtoni*. Apidae: California Digger (*Anthophora californica*). Bear-like Digger Bee (*Anthophora ursina*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Halictidae: Marin County Sweat Bee (*Lasioglossum marinense*). Megachilidae: White-faced Summer Mason Bee (*Hoplitis albifrons*). *Osmia exigua*.

Rosa woodsii. **Woods' Rose**. May-June.

Bees: *Andrena amphibola*. *Andrena nivalis*. Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Halictidae: *Lasioglossum cooleyi*. Megachilidae: *Hoplitis producta*.

Rubus sp. **Raspberries and Blackberries**.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Sandpit Mining Bee (*Andrena barbilabris*). Caerulean Miner Bee (*Andrena caerulea*) (M & N). Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena forbesii* – (M & N) (fq). Hippotes's Miner Bee (*Andrena hippotes*) – (M & N) (fq). *Andrena nigrihirta*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena nivalis*. *Andrena perimelas* (M & N). Willow Mining Bee (*Andrena salicifloris*) (M & N). *Andrena w-scripta*. *Andrena thaspi*. Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee

(*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). *Nomada articulata*. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Ochraceous Cellophane Bee (*Colletes ochraceus*). Episcopal Masked Bee (*Hylaeus episcopalis giffardiellus*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*). *Lasioglossum incompletum* (M & N). *Lasioglossum kincaidii* (M & N). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*). Red-footed Cuckoo Leafcutter (*Coelioxys rufitarsis*). *Coelioxys sayi*. Flat-tailed Leafcutter Bee (*Megachile mendica*). Dense-haired Mason Bee (*Osmia densa*). *Osmia sandhousae*.

Rubus leucodermis. **Whitebark Raspberry**. May-June.

Bees: Andrenidae: *Andrena hemileuca* np. *Andrena nivalis* np. Shifty Miner Bee (*Andrena saccata*) np. Apidae: Honeybee (*Apis mellifera*) np. California Bumblebee (*Bombus californicus*) n. Yellow-fronted Bumblebee (*Bombus flavifrons*) n. Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*) n. Yellow-faced Bumblebee (*Bombus vosnesenskii*) n. Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) np. Colletidae: Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Megachilidae: *Anthidium mormonum*. *Hoplitis producta*. *Hoplitis sambuci*. *Osmia malina*.

Rubus parviflorus. **Thimbleberry**. March-May.

Bees: Andrenidae: *Andrena angustella*. Striped Mining Bee (*Andrena angustitarsata*). Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena w-scripta* p. Apidae: California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Prickly Ceratina (*Ceratina acantha*) (M & N). Megachilidae: *Hoplitis fulgida*. Blue Orchard Bee (*Osmia lignaria*).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Rubus spectabilis. **Salmonberry**. February-March.

Bees: Megachilidae: Texas Osmia (*Osmia texana*).

Rubus ursinus. *Rubus vitifolius*. **California Blackberry**. February-May.

Bees: Andrenidae: *Andrena amphibola* np. *Andrena anisochlora* np. Striped Mining Bee (*Andrena angustitarsata*) np. Golden-haired Miner Bee (*Andrena auricoma*) np. *Andrena cressonii* np. *Andrena forbesii* np. *Andrena hemileuca* np. *Andrena nigrihirta* n. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) np. *Andrena nivalis* np. Piper's Miner Bee (*Andrena piperi*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) np. Willow Mining Bee (*Andrena salicifloris*) np. Subtle Miner Bee (*Andrena subtilis*) (M & N). *Panurginus atriceps* np. Apidae:

California Digger (*Anthophora californica*) (M & N). Honeybee (*Apis mellifera*) np. California Bumblebee (*Bombus californicus*) n. Edward's Bumblebee (*Bombus edwardsii*) (M & N). Fernald's Cuckoo Bumblebee (*Bombus flavidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*) n. Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*) n. Fuzzy-horned Bumblebee (*Bombus mixtus*) n. Sitka Bumblebee (*Bombus sitkensis*) n. Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly Ceratina (*Ceratina acantha*) np. *Ceratina micheneri* (M & N). *Ceratina tejonensis* (M & N). Edward's Long-horned Bee (*Eucera edwardsii*). *Nomada* sp. (M & N). n. Halictidae: Bicolored Striped Sweat Bee (*Agapostemon virescens*) np. Wide-striped Sweat Bee (*Halictus farinosus*) np. Orange-legged Furrow Bee (*Halictus rubicundus*) np. *Lasioglossum allonotus* np. *Lasioglossum olympiae* np. *Lasioglossum ovaliceps* (M & N). Titus' *Lasioglossum* (*Lasioglossum titusii*) np. Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). Large Indigo Mason Bee (*Osmia atrocyanea*) n. Bufflehead Mason Bee (*Osmia bucephala*). Dense-haired Mason Bee (*Osmia densa*). *Osmia dolerosa*. *Osmia juxta*. Kincaid's Mason Bee (*Osmia kincaidii*) np. Blue Orchard Bee (*Osmia lignaria*) np. Black-faced Mason Bee (*Osmia nigrifrons*). Tooth-bellied Mason Bee (*Osmia odotogaster*). Small Mason Bee (*Osmia pusilla*) np.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Flies: Greater Bee fly (*Bombylius major*) n. Drone Fly (*Eristalis tenax*) np.

Burikam, Intawat. 1986. Foraging ecology of pollinators in the early stages of secondary succession in the Western Hemlock (*Tsuga heterophylla* (Raf.) Sarg.) zone of the Oregon Coast Range. Ph.D. thesis, Oregon State University for many observations, especially nectar (n) and pollen (p) usage.

Rupertia physodes. *Psoralea physodes*. **California Tea**. May-July.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Monk Longhorn (*Eucera frater albopilosa*) (M & N).

Sagittaria cuneata. **Tule Potato**. July-August.

Sagittaria latifolia. **Common Arrowhead**. May-June.

Bees: Apidae: Honeybee (*Apis mellifera*). Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*). Halictidae: *Halictus ligatus*.

Flies: Syrphidae: European Drone Fly (*Eristalis arbustorum*) (Hilty). Thick-legged Hoverfly (*Syrpitta pipiens*) (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Sagittaria longiloba. **Longbarb Arrowhead**. May-June.

Sagittaria motevidensis ssp. *calycina*. *Sagittaria calycina*. **Hooded Arrowhead**. July-August.

Sagittaria sanfordii. **Valley Arrowhead**. May-October.

Salix sp. **Willow**.

Bees: Andrenidae: *Andrena algida*. *Andrena amphibola*. Striped Mining Bee (*Andrena angustitarsata*) – (M & N) (fq) “Apparently polylectic, with emphasis on ... *Salix*.” *Andrena annectens* – (M & N) “Presumably oligolectic to *Salix*, as are all of its close relatives.” Deathcamas Miner Bee (*Andrena astragali*). *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). Sandpit Mining Bee (*Andrena barbilabris*). *Andrena birtwelli*. *Andrena bucculenta* (M & N) (fq) “Oligolectic on *Salix*.” Caerulean Miner Bee (*Andrena caerulea*). Mock-orange Miner Bee (*Andrena candida*) (M & N). *Andrena candidiformis*. *Andrena ceanothifloris* *cretata*. *Andrena chapmanae* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*) – (M & N) (fq) “Polylectic with emphasis on ... and *Salix*.” *Andrena chlorura*. *Andrena cleodora*. *Andrena concinnula*. Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena cristata*. Copper-tinted Miner Bee (*Andrena cupreotincta*). *Andrena edwardsi*. *Andrena forbesii* – (M & N) (fq). *Andrena fragilis*. *Andrena frigida*. Dark-tailed *Andrena* (*Andrena fuscicauda*) (M & N). Hippotes’s Miner Bee (*Andrena hippotes*) – (M & N) (fq). *Andrena hypoleuca*. *Andrena ishii* – (M & N) (fq) “Apparently specific to *Salix* for pollen.” *Andrena latifrons*. Alice’s *Andrena* (*Andrena mackieae*) fq. Western Red-legged Miner Bee (*Andrena medionitens*). Rose Miner Bee (*Andrena melanochroa*) (M & N). Small Green Miner Bee (*Andrena microchlora*). Miserable *Andrena* (*Andrena miserabilis*) (M & N). *Andrena nevadensis* – (M & N) (fq) “Oligolectic on *Salix*.” *Andrena nigrihirta*. Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) – (M & N) (fq). *Andrena nivalis*. *Andrena obscuripostica*. *Andrena orthocarpi* Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena palpalis*. *Andrena pensilis*. *Andrena perarmata*. *Andrena perimelas* (M & N). Piper’s Miner Bee (*Andrena piperi*). Orange-banded *Andrena* (*Andrena prunorum*) – (M & N) (fq). Willow Mining Bee (*Andrena salicifloris*) – (M & N) (fq). *Andrena scurra*. *Andrena semipunctata* – (M & N) (fq) “Oligolectic on *Salix*.” Lonely Miner (*Andrena sola*) (M & N). *Andrena striatifrons* – (M & N) (fq) “Oligolectic of *Salix*.” *Andrena subdepressa*. *Andrena subhirta*. Subtle Miner Bee (*Andrena subtilis*). *Andrena thaspi*. Topaz Miner Bee (*Andrena topazana*). *Andrena transnigra* (fq). *Andrena vandykei*. *Andrena vicinoides*. *Andrena vierecki*. *Andrena w-scripta*. *Panurginus gracilis* (M & N). *Panurginus nigrellus* (M & N) (fq). *Perdita quadrisignata*. Apidae: Edward’s Digger (*Anthophora edwardsii*) (M & N). *Anthophora neglecta*. Pacific Digger (*Anthophora pacifica*) (M & N). Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward’s Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). Ashy Digger Bee (*Habropoda cineraria*). *Nomada articulata*. Crotch’s Nomad (*Nomada crotchii*). Colletidae: Slevin’s Cellophane Bee (*Colletes slevini*). Yerba Santa Masked Bee (*Hylaeus calvus*) (M & N). *Hylaeus conspicuus* (M & N). Episcopal Masked Bee (*Hylaeus episcopalis giffardiellus*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M

& N). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea mulleri*. Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum allonotus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum ovaliceps*. *Lasioglossum pullilabre* (M & N). *Lasioglossum punctatoventre*. Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N) (fq). *Lasioglossum trizonatum* (M & N) (fq). Megachilidae: *Anthidium collectum*. Dense-haired Mason Bee (*Osmia densa*). *Osmia latisulcata*. *Osmia marginipennis*. Friendly Mason Bee (*Osmia proxima*). Montana Cuckoo Carder Bee (*Stelis montana*).

Male willows, which offer pollen, have the edge in attracting a greater diversity of bees:

[Giuseppe Tumminello, Timothy A. Volk, Scott H. McArt, Melissa K. Fierke. 2018. Maximizing pollinator diversity in willow biomass plantings: A comparison between willow sexes and among pedigrees, *Biomass and Bioenergy*, Volume 117:124-130, ISSN 0961-9534, <https://doi.org/10.1016/j.biombioe.2018.07.013>. (<http://www.sciencedirect.com/science/article/pii/S0961953418301843>)

Abstract: Shrub willow has potential to be a substantial source of renewable biomass for production of bioenergy, biofuels, and bioproducts. At the same time, scientists and land managers are increasingly challenged to achieve multiple ecosystem functions in bioenergy plantings. Due to willow's early-season bloom period, a time when natural forage for bees can be limited, biomass plantings offer a potential benefit of floral resources for pollinators, some of which are known to be experiencing recent declines. To assess which willow cultivars and sex may provide the most benefit to pollinators, we conducted a common-garden experiment (Northeast U.S.) comparing bee (Hymenoptera: Anthophila) visitation among seven pedigrees and both sexes of short rotation coppice willow. We quantified abundance, richness, diversity, evenness, and species composition in plots planted with each pedigree and sex. Over seven sampling dates, we found an abundant and diverse bee assemblage comprised of 4675 individuals representing >56 species, at least 10 of which are rare or in decline in the northeastern United States. Willow sex was an important factor in bee visitation differences, with male willows supporting 39% greater abundance, 20% greater richness, and 9% greater diversity of bee visitors. Greater bee richness and diversity on male willows was due to an abundance-driven accumulation of species, as determined via rarefaction. Ordination analyses indicated composition of bee species assemblages differed among both willow pedigree and sex. Thus, our findings suggest male willow of varying pedigrees may be optimal for strategic plantings intended to meet bioenergy goals while also benefiting pollinators.
Keywords: *Salix*; Bioenergy; Agricultural ecosystem; Landscape design; Early season pollinators; Pollinator health]

Salix exigua. *Salix argophylla*. **Narrowleaf Willow**. February-March.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Mock-orange Miner Bee (*Andrena candida*). *Andrena concinnula*. Hippotes's Miner Bee (*Andrena hippotes*). *Andrena orthocarpus*. Pale-faced Miner Bee (*Andrena pallidifovea*). Willow Mining Bee (*Andrena salicifloris*). *Andrena scurra*. *Andrena semipunctata* (M & N). *Andrena transnigra*. Apidae:

Anthophora petrophila. Prickly Ceratina (*Ceratina acantha*) (M & N). *Nomada articulata*.
Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: *Lasioglossum incompletum* (M & N).

For bee visitation observations, this species was the 10th most popular in 2011 and 18th most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years.

Salix esigua var. *hindsiana*. *Salix hindsiana*. **Sandbar Willow**. February-March.

Bees: Andrenidae: Mock-orange Miner Bee (*Andrena candida*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena semipunctata* (M & N) (fq). Halictidae: *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

Salix gooddingii. *Salix nigra*. **Goodding's Willow**. February-March.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*) – (M & N) (fq). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena concinnula*. Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena ferrugineipes*. *Andrena palpalis* (M & N). *Andrena semipunctata* (M & N) (fq). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum kincaidii* (M & N). *Lasioglossum pullilabre* (M & N). *Lasioglossum tegulariforme* (M & N).

Salix hookeriana. **Coastal Willow**. April-June.

Salix laevigata. **Red Willow**. February-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*). *Andrena candidiformis* (M & N). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena cleodora*. *Andrena concinnula*. *Andrena frigida*. Dark-tailed *Andrena* (*Andrena fuscicauda*). *Andrena semipunctata* (M & N) (fq). *Andrena w-scripta* (M & N). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum allonotus* (M & N). *Lasioglossum nevadense* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years and rare in one year.

Salix lasiandra. **Pacific Willow**. March-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N).

Salix lasiolepis. **Arroyo Willow**. February-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) – (M & N) (fq). *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). Mock-orange Miner Bee (*Andrena candida*) – (M & N) (fq). *Andrena candidiformis*. Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena chlorura*. *Andrena concinnula*. Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena ferrugineipes*. *Andrena frigida*. Alice's *Andrena* (*Andrena mackieae*). Miserable *Andrena* (*Andrena miserabilis*) (M & N). *Andrena oenotherae* (M & N). *Andrena orthocarpus*. *Andrena perarmata* (M & N) (fq). Piper's Miner Bee (*Andrena piperi*) (M & N). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Andrena semipunctata* (M & N) (fq). *Andrena subdepressa*. Subtle Miner Bee (*Andrena subtilis*) (M & N). *Andrena subtrita* (M & N) (fq). *Panurginus gracilis*. *Panurginus nigrellus*. Apidae: Pacific Digger (*Anthophora pacifica*) (M & N). California Bumblebee (*Bombus californicus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) – (Laine) noted on male flowers. Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Crotch's Nomad (*Nomada crotchii nigrior*) (M & N). *Nomada* sp. (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Halictidae: Agapostemon femoratus (M & N). Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus ligatus* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum nigrescens* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). *Lasioglossum trizonatum* (M & N). Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*). Blue Orchard Bee (*Osmia lignaria*).

For bee visitation observations, this species was the 25th most popular in 2011 and 10th most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years.

Flies: *Sphecomyia vittata* (Correa).

Salvia sp. **Sage**.

Bees: Andrenidae: *Andrena dissimulans* (M & N). *Andrena palpalis*. *Panurginus atriceps*. Apidae: California Digger (*Anthophora californica*). *Anthophora exigua*. *Anthophora neglecta*. *Anthophora petrophila*. Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Clarkia*

Ceratina (*Ceratina sequoiae*) (M & N). Common Chimney Bee (*Diadasia bituberculata*) (M & N). *Eucera amisinckiae* (M & N). *Eucera angustifrons* (M & N) – Polylectic with emphasis on ... *Salvia*.” California Mountain Digger (*Habropoda depressa*) (M & N) (fq). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Valley Carpenter Bee (*Xylocopa varipuncta*). *Zacosmia maculata*. Colletidae: *Colletes phaceliae*. Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). Halictidae: *Dufourea femorata* (M & N). *Halictus tripartitus* (M & N). Megachilidae: *Anthidium maculosum*. European Woolcarder (*Anthidium manicatum*). *Ashmeadiella* sp. *Hoplitis hypocrita*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletti*. *Osmia gabrielis*. *Osmia granulosa*. *Osmia latisulcata*. *Osmia malina*. *Osmia montana*. Black-bearded Mason Bee (*Osmia nigrobarbata*). *Protosmia rubifloris*. Mellitidae: *Hesperapis* sp.

Salvia carduacea. **Thistle Sage**. March-May.

Bees: Apidae: California Digger (*Anthophora californica*). Crotch’s Digger (*Anthophora crotchii*). Urbane Digger (*Anthophora urbana*) (M & N). California Bumblebee (*Bombus californicus*). Crotch’s Bumblebee (*Bombus crotchii*). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Common Chimney Bee (*Diadasia bituberculata*). *Eucera albescens* (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Ultra Green Sweat Bee (*Agapostemon texanus*). *Halictus tripartitus* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*). Megachilidae: *Osmia granulosa*. Blue Orchard Bee (*Osmia lignaria*).

Salvia columbariae. **Chia**. March-June.

Bees: Andrenidae: *Andrena atypica*. Golden-Haired Miner Bee (*Andrena auricoma*). Apidae: California Digger (*Anthophora californica*). Crotch’s Digger (*Anthophora crotchii*) (M & N). Short Sun-Digger (*Anthophora curta*) (M & N). Edward’s Digger (*Anthophora edwardsii*). *Anthophora neglecta*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Crotch’s Bumblebee (*Bombus crotchii*). *Diadasia angusticeps*. *Eucera actiosa* (M & N). *Eucera angustifrons* (M & N). California Mountain Digger (*Habropoda depressa*). Dimorphic Mountain Digger (*Habropoda tritissima*). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). *Melissodes velutinus*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). *Dufourea sandhouseae* (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum ovaliceps* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Osmia clarescens*. *Osmia cyanopoda*. *Osmia exigua*. *Osmia integra*. Kincaid’s Mason Bee (*Osmia kincaidii*). *Osmia latisulcata*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Salvia mellifera. **Black Sage**. March-July.

Bees: Andrenidae: *Andrena atypica* (M & N). Mock-orange Miner Bee (*Andrena candida*). *Andrena chlorura*. Blue-and-Black Andrenid (*Andrena nigroaerulea*). Shifty Miner Bee (*Andrena saccata*). *Panurginus gracilis* (M & N). Apidae: California Digger (*Anthophora californica*). Edward's Digger (*Anthophora edwardsii*). *Anthophora flavocincta*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Crotch's Bumblebee (*Bombus crotchii*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee (*Bombus melanopygus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Dwarf Ceratina (*Ceratina nanula*). *Ceratina punctigena* (M & N). *Ceratina tejonensis* (M & N). *Eucera actiosa*. *Eucera angustifrons* (M & N). California Mountain Digger (*Habropoda depressa*). Dimorphic Mountain Digger (*Habropoda tritissima*). Pacific Cuckoo Bee (*Melecta pacifica*) (M & N). *Melecta separata callura* [parasite of Edward's Digger]. *Melissodes tepida timberlakei*. *Tetraloniella* sp. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: *Lasoglossum mellipes*. *Lasioglossum nigrescens* (M & N). *Lasioglossum ovaliceps* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: European Woolcarder (*Anthidium manicatum*). Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella salviae*. *Hoplitis hypocrita*. *Megachile gemula*. *Megachile montivaga*. Alfalfa Leafcutter (*Megachile rotundata*). Short Mason Bee (*Osmia brevis*). *Osmia clarescens*. Colorado *Osmia* (*Osmia coloradensis*). *Osmia cyanopoda*. *Osmia exigua*. *Osmia gabrielis*. *Osmia granulosa*. Happy Mason Bee (*Osmia laeta*). Blue Orchard Bee (*Osmia lignaria propinqua*). Blueberry Bee (*Osmia ribifloris*). Texas *Osmia* (*Osmia texana*). *Osmia tristella*. *Protosmia rubifloris*.

UC Bee Lab garden study got especially bumblebees, *Osmia* mason bees, honeybees, and Digger bees.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in four years and rare in two years.

Flies: Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Correa) Pied Hoverfly (*Scaeva pyrastris*) (Correa). *Volucella* sp. (a bumblebee mimic) (Correa).

An attractive Hemiptera: Pleasant Plant Bug (*Closterocoris amoenus*).

Salvia sonomensis. **Sonoma Sage**. March-July.

Bees: Andrenidae: *Andrena lomatii*. Apidae: California Digger (*Anthophora californica*). Black-notched Bumblebee (*Bombus bifarius*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera lunata* (M & N). California Mountain Digger (*Habropoda depressa*) (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Colletidae: Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Megachilidae: Blue Orchard Bee (*Osmia lignaria*). Western Forest Mason Bee (*Osmia nemoris*). Blueberry Bee (*Osmia ribifloris*).

Salvia spathacea. **Hummingbird Sage**. February-July.

Bees: Apidae: California Bumblebee (*Bombus californicus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Brooks, 2020).

Strongly appeals to hummingbirds.

Sambucus sp. **Elderberry**.

Bees: Andrenidae: Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena concinnula*. *Andrena orthocarp*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena semipunctata* (M & N). Apidae: Parthenogenic Ceratina (*Ceratina dallatoreana*). *Clarkia Ceratina* (*Ceratina sequoiae*) (M & N). *Eucera actiosa* (M & N). *Eucera angustifrons* (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N) (fq). *Lasioglossum nigrescens* (M & N). Megachilidae: *Anthidium collectum*.

Bees: Apidae: Honeybee (*Apis mellifera*).

Sambucus nigra ssp. *caerulea*. *Sambucus mexicana*. *Sambucus caerulea*. **Blue Elderberry**.
March - July.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Caerulean Miner Bee (*Andrena caerulea*) (M & N). Mock-orange Miner Bee (*Andrena candida*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). Colletidae: Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: *Lasioglossum nevadense* (M & N). Sphecodes sp. #55 (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year and rare in another.

Sambucus appeals to beetles. A click beetle, *Limonius ornatulus* particularly abundant on its flowers. The dead twigs and stems good nesting habitat for some bees. Supports many moth caterpillars, notably Elderberry Moth (*Zothea tranquilla*); its caterpillars colorfully yellow and black, hiding in tightly closed leaf nests.

Sambucus racemosa var. *racemosa*. **Pacific Red Elderberry**. July-August.

Sanicula sp. **Sanicles**.

Bees: Striped Mining Bee (*Andrena angustitarsata*). Golden-Haired Miner Bee (*Andrena auricoma*). Green-bellied Miner Bee (*Andrena chlorogaster*) (M& N) (fq) “Polylectic with emphasis on ... *Sanicula* ...” Small Green Miner Bee (*Andrena microchlora*) (M & N) (fq) “Oligolectic with emphasis on *Lomatium* and *Sanicula*.” Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N).

Sanicula arctopoides. **Footsteps of Spring**. February-May.

Sanicula arguta. **Sharptooth Blacksnakeroot**. March-April.

Sanicula bipinnata. **Poison Sanicle**. March-April.

Sanicula bipinnatifida. **Purple Sanicle**. March-May.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Green-bellied Miner Bee (*Andrena chlorogaster*) – (M & N) (fq). *Andrena lomatii*. *Andrena pallidiscopa pallidiscopa* (M & N) (fq). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Lasioglossum incompletum* (M & N).

Sanicula crassicaulis. **Pacific Sanicle**. February-April.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq). Halictidae: *Lasioglossum incompletum* (M & N).

In a Pinnacles National Monument survey, native bee visits were rated as rare.

Sanicula graveolens. *Sanicula nevadensis*. **Northern Sanicle**. February-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Golden-Haired Miner Bee (*Andrena auricoma*). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N) (fq). *Andrena lomatii*. Small Green Miner Bee (*Andrena microchlora*) (M & N) (fq). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). Apidae: Black-notched Bumblebee (*Bombus bifarius*). Megachilidae: Small Mason Bee (*Osmia pusilla*).

Sanicula hoffmannii. **Hoffmann's Snakeroot**. March-May.

Sanicula laciniata. **Coast Sanicle**. February-May.

Sanicula maritima. **Adobe Sanicle**. February-May.

Sanicula saxatilis. **Diablo Sanicle**. April-May.

Sanicula tuberosa. **Turkey Pea**. February-July.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Green-bellied Miner Bee (*Andrena chlorogaster*). *Andrena gordonii*. Rose Miner Bee (*Andrena melanothroa*). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*). *Andrena orthocarpi*. Shifty Miner Bee (*Andrena saccata*). *Andrena transnigra*. *Andrena w-scripta*. Apidae: Fuzzy-horned Bumblebee (*Bombus mixtus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Colletidae: *Colletes consors*. Halictidae: *Dufourea dentipes*. Megachilidae: *Osmia exigua*. *Osmia*

montana. *Osmia sedula*. Small Indigo Mason Bee (*Osmia tristella*).

In a Pinnacles National Monument survey, native bee visits were rated as rare.

Sarcodes sanguinea. Snowplant. May-June.

Bees: Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Scrophularia californica. **California Figwort. California Bee Plant.** February-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*) – (M & N) (fq) – “Apparently polylectic, usually associated with herbs in shaded situations with emphasis on *Potentilla glandulosa* [*Drymocallis glandulosa*] and *Scrophularia californica*.”. *Andrena scurra*. Apidae: Honeybee (*Apis mellifera*). California Digger (*Anthophora californica*). Urbane Digger (*Anthophora urbana*) (M & N). California Bumblebee (*Bombus californicus*) (Brooks, 2020). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Sitka Bumblebee (*Bombus sitkensis*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N). Arizona Ceratina (*Ceratina arizonensis*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Ceratina punctigena* (M & N). *Clarkia Ceratina* (*Ceratina sequoiae*) (M & N). *Ceratina tejonensis* (M & N). *Eucera angustifrons* (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Modest Masked Bee (*Hylaeus modestus*). Modest Masked Bee (*Hylaeus modestus citrinifrons*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum olympiae* (M & N). *Lasioglossum ovaliceps* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Considered a “honey” plant, good nectar for Honeybee (*Apis mellifera*); important for bumblebees and hummingbirds.

Wasps: *Vespula* sp. (Brooks, 2020) (fq).

Scutellaria antirrhinoides. **Snapdragon Skullcap.** June-September.

Scutellaria bolanderi. **Bolander's Skullcap.** June-August.

Bees: Megachilidae: *Anthidium edwardsii*.

Scutellaria californica. **California Skullcap**. June-July.

Scutellaria galericulata. **Marsh Skullcap**. June-September.

Scutellaria siphocampyloides. **Grayleaf Skullcap**. May-September.

Scutellaria tuberosa. **Danny's Skullcap**. March-July.

Sedum sp. **Stonecrop**.

Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Golden-haired Miner Bee (*Andrena auricoma*). Mock-orange Miner Bee (*Andrena candida*). Green-bellied Miner Bee (*Andrena chlorogaster*). Orange-banded Andrena (*Andrena prunorum*). Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Crotch's Nomad (*Nomada crotchii nigrior*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Buckwheat Masked Bee (*Hylaeus polifolii*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: Halictus tripartitus (M & N). Lasioglossum pavonotum (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). Megachile frigida. Osmia albolateralis. Colorado Osmia (*Osmia coloradensis*). Osmia penstemonis.

Sedum laxum. **Roseflower Stonecrop**. May-July.

Sedum radiatum. **Coast Range Stonecrop**. April-July.

Sedum spathuliflorum. **Pacific Stonecrop**. April-July.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Senecio sp. Many now assigned to Packera (see).

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*). Blue-and-Black Andrena (*Andrena nigrocaerulea*). *Andrena thaspi*. Apidae: Anthophora petrophila. Urbane Digger (*Anthophora urbana*) (M & N). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*) (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*). Clarkia Ceratina (*Ceratina sequoiae*) (M & N). *Ceratina tejonensis*. Ochraceous Chimney Bee (*Diadasia ochracea*). Agile Long-horned Bee (*Melissodes agilis*) (M & N). *Melissodes appressus*. *Melissodes bimatrix*. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N) (fq). *Melissodes paululus* – (M & N) (fq). Robust Long-horned Bee (*Melissodes robustior*) (M & N). *Nomada formula* (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*).

Halictus tripartitus (M & N). Megachilidae: Anthidium atrifrons. Ashmeadiella bigeloviae. Heriades cressoni. White-faced Summer Mason Bee (Hoplitis albifrons). Megachile melanophaea. Megachile montivaga. Megachile nevadensis. Western Leafcutter (Megachile perihirta). Golden-tailed Leafcutter (Megachile relativa). Megachile subnigra. California Mason Bee (Osmia californica). Colorado Osmia (Osmia coloradensis). Osmia montana. Osmia paradisica.

Senecio aphanactis. **Rayless Ragwort**. January-April.

Senecio aronicoides. **California Butterweed**. April-July.

Senecio californicus. **California Ragwort**. March-May.

Bees: Andrenidae: Andrena layiae (M & N). Lonely Miner (Andrena sola) (M & N). Apidae: Arizona Ceratina (Ceratina arizonensis) (M & N). Colletidae: Buckwheat Masked Bee (Hylaeus polifolii). Halictidae: Ultra Green Sweat Bee (Agapostemon texanus) (M & N). Lasioglossum incompletum (M & N). Megachilidae: Big-cheeked Mason Bee (Ashmeadiella buconis). Mellitidae: Hesperapis sp.

Senecio clevelandii var. clevelandii. **Cleveland's Ragwort**. June-July.

Senecio clevelandii var. heterophyllus. **Red Hills Ragwort**. June-July.

Senecio flaccidus. Senecio douglasii. **Threadleaf Ragwort**. June-October.

Bees: Andrenidae: Andrena isocomae (M & N) (fq). Perdita ciliata. Apidae: California Digger (Anthophora californica) (M & N) (fq). Short Sun-Digger (Anthophora curta) (M & N). Urbane Digger (Anthophora urbana). Western Bumblebee (Bombus occidentalis). Yellow-faced Bumblebee (Bombus vosnesenskii). Arizona Ceratina (Ceratina arizonensis) (M & N). Ceratina punctigena (M & N). Sunflower Bee (Diadasia enavata). Diadasia rinconis. Melissodes lustrus. Melissodes paululus. Robust Long-horned Bee (Melissodes robustior). Melissodes tepida timberlakei. Melissodes tessellatus. Sunflower Bee (Svastra obliqua expurgata) (M & N). California Cuckoo Bee (Xeromelecta californica). Colletidae: Mesilla Masked Bee (Hylaeus mesillae). Halictidae: Peridot Bee (Augochlorella pomoniella). Wide-striped Sweat Bee (Halictus farinosus) (M & N) (fq). Halictus ligatus. Halictus tripartitus. Lasioglossum mellipes (M & N). Megachilidae: Big-cheeked Mason Bee (Ashmeadiella buconis). Ashmeadiella californica. Horn-faced Leafcutter Bee (Megachile fidelis). Megachile gentilis. Megachile montivaga. Parallel Leaf-cutting Bee (Megachile parallela). Western Leafcutter (Megachile perihirta). Colorado Osmia (Osmia coloradensis). Osmia texana.

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Senecio flaccidus var. douglasii. **Bush Groundsel**. June-October. This is the widespread common, showy variety; all of the above apply.

Senecio fremontii var. *fremontii*. **Fremont's Groundsel**. June-September.

Senecio hydrophiloides. **Sweet Marsh Ragwort**. May-August.

Bees: Megachilidae: California Mason Bee (*Osmia californica*). Colorado *Osmia* (*Osmia coloradensis*). *Osmia montana*. Tooth-bellied Mason Bee (*Osmia odotogaster*).

Senecio hydrophilus. **Water Groundsel**. May-September.

Sesuvium verrucosum. **Western Sea Purslane**. April-September.

Bees: Andrenidae: *Calliopsis scutellaris*. Colletidae: Episcopal Masked Bee (*Hylaeus episcopalis*). Megachilidae: *Ashmeadiella aridula*. *Ashmeadiella bigeloviae*.

Sidalcea sp. **Checkerblooms**.

Apidae: Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Diadasia nigrifrons* – (M & N) “oligolege” of this genus. *Diadasia nitidifrons* (M & N). Megachilidae: *Megachile montivaga*. *Osmia montana*. Texas *Osmia* (*Osmia texana*).

Sidalcea calycosa. **Checkerbloom**. April-September.

Megachilidae: *Hoplitis producta*.

Sidalcea calycosa ssp. *calycosa*. **Annual Checkerbloom**. April-September.

Sidalcea calycosa ssp. *rhizomata*. **Point Reyes Sidalcea**. April-September.

Sidalcea diploscypha. **Fringed Checkerbloom**. May.

Sidalcea hartwegii. **Valley Checkerbloom**. May-June.

Sidalcea hickmanii. **Chaparral Checkerbloom**. May-July.

Sidalcea hirsuta. **Hairy Checkerbloom**. April-May.

Sidalcea keckii. **Keck's Checkerbloom**. April-May.

Sidalcea malachroides. **Mapleleaf Checkerbloom**. April-August.

Sidalcea malviflora. *Sidalcea malvaeflora*. **Wild Hollyhock**. May-August.

Bees: Andrenidae: *Calliopsis obscurella* (M & N). Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*) (M & N). Prickly Ceratina (*Ceratina acantha*) (M & N).

Diadasia nigrifrons – (M & N) (fq). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). *Eucera lunata* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum cooleyi* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). Megachilidae: *Heriades occidentalis*. Short Mason Bee (*Osmia brevis*). Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

Sidalcea oregana. **Oregon Checkermallow**. May-June.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Van Dyke's Bumblebee (*Bombus vandykei*). Diadasia nigrifrons. Megachilidae: Dense-haired Mason Bee (*Osmia densa*). *Osmia malina*. Montana Cuckoo Carder Bee (*Stelis montana*).

Silene antirrhina. **Sleepy Catchfly**. April-August.

Silene hookeri. **Hooker's Champion**. April-June.

Silene laciniata ssp. *californica*. *Silene californica*. **California Indian Pink**. April-July.

Silene lemmonii. **Lemmon Champion**.

Rate of flower visitation very low.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*). Megachilidae: *Osmia* sp.

The most frequent flower visitors were syrphid flies.

Hove, A. (2007). Pollination biology of *Silene lemmonii* (Caryophyllaceae), a montane perennial herb. *Madroño*, 54(4), 293-305. Retrieved June 3, 2020, from www.jstor.org/stable/41426364

Silene scouleri. **Simple Champion**. Summer.

Silene serpentinicola. **Serpentine Catchfly**. May-July.

Silene verecunda. **San Francisco Catchfly**. March-June.

Sisyrinchium sp.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N).

Sisyrinchium bellum. **Blue-eyed Grass**. March-May.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Caerulean Miner Bee

(*Andrena caerulea*) (M & N). Blue-and-Black Andrena (*Andrena nigrocaerulea*) – (M & N) (fq). *Andrena pensilis* (M & N). *Andrena perimelas* (M & N). Clover Andrena (*Andrena plana*).
Apidae: California Digger (*Anthophora californica*). California Bumblebee (*Bombus californicus*). *Ceratina micheneri* (M & N). *Eucera actiosa* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Peridot Bee (*Augochlorella pomoniella*). *Halictus tripartitus* (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum mellipes* (M & N). *Lasioglossum olympiae* (M & N).

Sisyrinchium californicum. **California Golden-eyed Grass**. March-August.

Sium suave. **Hemlock Waterparsnip**. July-August.

Bees: Apidae: Honeybee (*Apis mellifera*). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus*). Halictidae: *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*).

Flies: Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Hilty). Drone Fly (*Eristalis tenax*) (Hilty). Thick-legged Hoverfly (*Syrirta pipiens*) (Hilty). *Syrphus ribesii* (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Others include wasps and flies.

Solanum spp. **Nightshade**.

Bees: Apidae: California Digger (*Anthophora californica*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Halictidae: Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: *Anthidium collectum*. *Osmia glauca*.

Solanum americanum. **White Nightshade**. March-November.

Solanum douglasii. **Greenspot Nightshade**. All year.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Dimorphic Mountain Digger (*Habropoda tritissima*). Valley Carpenter Bee (*Xylocopa varipuncta*) (M & N). Halictidae: *Lasioglossum mellipes* (M & N). Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*).

Solanum parishii. **Parish's Purple Nightshade**. February-June.

Solanum umbelliferum. **Blue Witch Nightshade** January-June.

Bees: Andrenidae: *Andrena candidiformis* (M & N). Lonely Miner (*Andrena sola*). Apidae: California Digger (*Anthophora californica*). Edward's Digger (*Anthophora edwardsii*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Edward's Bumblebee (*Bombus edwardsii*)

(M & N). *Eucera lunata* (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years and rare in one year.

Solanum xanti. **Chaparral Nightshade**. February-July.

Bees: Apidae: California Digger (*Anthophora californica*). Dimorphic Mountain Digger (*Habropoda tritissima*). Halictidae: *Lasioglossum mellipes* (M & N).

Solidago sp. **Goldenrod**. At least one now a *Euthamia*.

Bees: Andrenidae: *Andrena citrinihirta* (M & N) (fq). *Andrena columbiana*. *Andrena helianthi*. *Andrena isocomae* (M & N) (fq). Orange-banded *Andrena* (*Andrena prunorum*) (M & N). *Perdita ciliata*. *Perdita claypolei* (M & N). *Perdita interserta*. Apidae: Short Sun-Digger (*Anthophora curta*). *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*) – (M & N) (fq). Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Short Sun-Digger (*Anthophora curta*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Fernald's Cuckoo Bumblebee (*Bombus flavidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*). Red-belted Bumblebee (*Bombus rufocinctus*). Sitka Bumblebee (*Bombus sitkensis*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Melissodes appressus* (M & N). *Melissodes hurdi*. *Melissodes lutulentus*. *Melissodes melanurus*. Small Long-horned Bee (*Melissodes microstictus*). *Melissodes moorei*. *Melissodes paululus* – (M & N) (fq). *Melissodes rivalis*. Robust Long-horned Bee (*Melissodes robustior*) (M & N). Sunflower Bee (*Svastra obliqua expurgata*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). California Carpenter Bee (*Xylocopa californica*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Colletidae: Glittering Cellophane Bee (*Colletes fulgidus fulgidus*) (M & N). Glittering Cellophane Bee (*Colletes fulgidus longiplumosus*) (M & N) (fq). Hyaline Cellophane Bee (*Colletes hyalinus gaudialis*) (M & N). Kincaid's Cellophane Bee (*Colletes kincaidii*). *Colletes phaceliae*. Spine-shouldered Cellophane Bee (*Colletes simulans*). Spine-shouldered Cellophane Bee (*Colletes simulans nevadensis*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) (M & N). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). *Hylaeus conspicuus*. Episcopal Masked Bee (*Hylaeus episcopalis*) (M & N). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus*). Buckwheat Masked Bee (*Hylaeus polifolii*). Punctate Spathulate-masked Bee (*Hylaeus punctatus*). Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*). Vertical Masked Bee (*Hylaeus verticalis*) (M & N). Halictidae: *Agapostemon femoratus* (M & N). Bicolored Striped Sweat Bee (*Agapostemon virescens*). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus* (M & N). *Lasioglossum allonotus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). *Lasioglossum*

tegulariforme (M & N). Alkali Bee (*Nomia melanderi*) (M & N). Cuckoo Sweat Bee (*Sphecodes arvensiformis*) (M & N). Megachilidae: European Wool Carder Bee (*Anthidium manicatum*). *Anthidium mormonum*. *Ashmeadiella bigeloviae*. *Ashmeadiella californica*. Porter's Cuckoo Leafcutter (*Coelioxys porterae*). Red-footed Cuckoo Leafcutter (*Coelioxys rufitarsis*). *Dianthidium pudicum*. *Heriades cressoni*. *Heriades occidentalis*. *Hoplitis fulgida*. *Hoplitis producta*. Common Little Leafcutter Bee (*Megachile brevis*). Patchwork Leafcutter Bee (*Megachile centuncularis*). Broad-handed Leafcutter (*Megachile latimanus*). Flat-tailed Leafcutter Bee (*Megachile mendica*). *Megachile montivaga*. *Megachile nevadensis*. Golden-tailed Leafcutter (*Megachile relativa*). Alfalfa Leafcutter (*Megachile rotundata*). *Osmia albolateralis*. *Stelis laticinta*.

Flies: Syrphidae: Mexican Cactus Fly (*Copestylus mexicanum*) (Correa).

Solidago canadensis. **Canada Goldenrod**. August-September.

Bees: Andrenidae: *Andrena helianthi*. Apidae: Red-belted Bumblebee (*Bombus rufocinctus*). Pale-marked Longhorn Bee (*Melissodes pallidisignatus*). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*). Spine-shouldered Cellophane Bee (*Colletes simulans*). Slender-faced Masked Bee (*Hylaeus leptocephalus*). Mesilla Masked Bee (*Hylaeus mesillae*). Vertical Masked Bee (*Hylaeus verticalis*). Halictidae: *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). Megachilidae: Common Little Leafcutter Bee (*Megachile brevis*). Golden-tailed Leafcutter (*Megachile relativa*). Blue Mason Bee (*Osmia cyanella*).

Flies: Syrphidae: Common Oblique Syrphid (*Allograpta obliqua*) (Hilty). *Syrphus ribesii* (Hilty). Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Solidago confinis. **Southern Goldenrod**. April-October.

Bees: Apidae: *Melissodes appressus* (M & N). Pale-marked Long-horned Bee (*Melissodes pallidisignata*) (M & N). Robust Long-horned Bee (*Melissodes robustior*) (M & N). California Cuckoo Bee (*Xeromelecta californica*) (M & N). *Zacospia maculata* (M & N). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*) (M & N). Halictidae: *Lasioglossum nigrescens* (M & N). *Lasioglossum trizonatum* (M & N).

Solidago elongata. *Solidago canadensis* var. *salebrosa*. *Solidago canadensis* ssp. *elongata*. *Solidago canadensis* var. *elongata*. **West Coast Canada Goldenrod**. July-September.

Bees: Apidae: Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes melanurus* (M & N). Small Long-horned Bee (*Melissodes microstictus*) (M & N). *Melissodes paululus* (M & N). *Nomada formula* (M & N). Colletidae: *Hylaeus conspicuus*. Halictidae: *Lasioglossum incompletum* (M & N). *Lasioglossum nigrescens* (M & N). Cuckoo Sweat Bee (*Sphecodes arvensiformis*) (M & N). Megachilidae: Common Little Leaf-cutter Bee (*Megachile brevis*).

Solidago spathulata. **Dune Goldenrod**. May-November.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Brooks, 2020). Megachilidae: Pacific Wool-carder Bee (*Anthidium palliventre*).

Flies: Bombyliidae: Geron sp. (Brooks, 2020).

Quite popular with butterflies.

Solidago velutina ssp. *californica*. *Solidago californica*. **California Goldenrod**. July-October.

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*). *Andrena citrinihirta* – (M & N) (fq). *Andrena w-scripta*. Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). Urbane Digger (*Anthophora urbana*) (M & N) (fq). California Bumblebee (*Bombus californicus*) Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Dwarf Ceratina (*Ceratina nanula*). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes paululus* – (M & N) (fq). Robust Long-horned Bee (*Melissodes robustior*). Sunflower Bee (*Svastra obliqua expurgata*). California Cuckoo Bee (*Xeromelecta californica*). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*) (M & N). Slevin's Cellophane Bee (*Colletes slevini*) (M & N) (fq). Colorado Yellow-faced Bee (*Hylaeus coloradensis*). Episcopal Masked Bee (*Hylaeus episcopalis*). Mesilla Masked Bee (*Hylaeus mesillae*). Nevada Yellow-faced Bee (*Hylaeus nevadensis*) (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*). Halictidae: Agapostemon femoratus. Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus ligatus*. Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus*. *Lasioglossum kincaidii* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum ovaliceps* (M & N). *Lasioglossum tegulariforme* (M & N). *Lasioglossum trizonatum* (M & N). Alkali Bee (*Nomia melanderi*). Cuckoo Sweat Bee (*Sphecodes arvensiformis*) (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium edwardsii*. *Anthidium maculosum*. Utah Wool-carder Bee (*Anthidium utahense*). *Ashmeadiella aridula*. Big-cheeked Mason Bee (*Ashmeadiella buconis*). *Dianthidium ulkei*. *Heriades cressoni*. *Heriades occidentalis*. *Megachile angularum*. Common Little Leafcutter Bee (*Megachile brevis*). Horn-faced Leafcutter Bee (*Megachile fidelis*). *Megachile gentilis*. *Megachile inimica*. *Megachile nevadensis*. Western Leafcutter (*Megachile perihirta*). Alfalfa Leafcutter (*Megachile rotundata*). *Megachile texana*. *Stelis laticincta*. Montana Cuckoo Carder Bee (*Stelis montana*).

UC Bee Lab garden study got especially Halictidae, Megachilidae (leafcutter and mason bees), and honeybees.

Flies: Syrphidae: Drone Fly (*Eristalis tenax*).

Spergularia atrosperma. **Sand Spurrey**. April-May.

Spergularia macrotheca. **Sticky Sand Spurrey**. February-May.

Spergularia macrotheca var. *leucantha*. **White Sticky Sand Spurrey**. February-May.

Spergularia marina. **Salt Marsh Sand Spurrey**. Syn. *Spergularia salina*. April-September.

Spiraea douglasii. **Rose Spiraea**. July-August. Approaches our area closely.

Stachys sp. **Hedgenettle**.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Miserable Andrena (*Andrena miserabilis*) (M & N) (fq). Apidae: Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Golden Northern Bumblebee (*Bombus fervidus*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Western Bumblebee (*Bombus occidentalis*). Sitka Bumblebee (*Bombus sitkensis*) (M & N). Sonoran Bumblebee (*Bombus sonoratus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Megachilidae: European Woolcarder (*Anthidium manicatum*). *Megachile* sp.

Stachys ajugoides. **Bugle Hedgenettle**. April-September.

Bees: Apidae: Orange-tipped Wood-digger (*Anthophora terminalis*). California Bumblebee (*Bombus californicus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Clarkia Ceratina (*Ceratina sequoiae*) (M & N). *Melissodes tepida timberlakei*. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Megachilidae: *Anthidium maculosum*. *Dianthidium dubium*.

Stachys albens. **Whitestem Hedgenettle**. June-August.

Bees: Apidae: Urbane Digger (*Anthophora urbana*). Megachilidae: Northern Rotund-Resin Bee (*Anthidiellum notatum*). *Anthidium maculosum*. *Anthidium mormonum*. *Anthidium placitum*. *Dianthidium dubium*. *Dianthidium pudicum*. *Dianthidium ulkei*. *Megachile angelarum*.

Stachys bullata. **California Hedgenettle**. April-September.

Bees: Apidae: Edward's Digger (*Anthophora edwardsii*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Western Bumblebee (*Bombus occidentalis*) (Laine). Sitka Bumblebee (*Bombus sitkensis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). California Mountain Bumblebee (*Habropoda depressa*). *Melissodes tepida timberlakei*. Halictidae: *Lasioglossum ovaliceps* (M & N). Megachilidae: *Anthidium maculosum*. *Protosmia rubifloris*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years, rare in two years.

Stachys chamissonis. **Coastal Hedgenettle**. May-October.

Stachys pycnantha. **Shortspike Hedgenettle**. June-October.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N).
Diadasia angusticeps (M & N). Megachilidae: *Anthidium maculosum*.

Stachys rigida. **Rough Hedgenettle**. May-June.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*).

Stachys rigida var. *quercetorum*. *Stachys quercetorum*. **Rough Hedgenettle**. March - October.

Bees: Apidae: California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Halictidae: *Lasioglossum mellipes* (M & N).

Stebbinsoseris decipiens. *Microseris decipiens*. **Santa Cruz Microseris**. April-May.

Stellaria borealis. **Boreal Starwort**. May-September.

Bees: Megachilidae: *Anthidium mormonum*.

Stellaria crispa. **Ruffled Starwort**. Summer.

Stellaria littoralis. **Beach Starwort**. Shore Chickweed. March-July.

Stellaria nitens. **Shining Chickweed**. December-February.

Stellaria umbellata. **Umbrella Starwort**. June-August.

Stephanomeria sp. **Wirelettuce**.

Bees: Andrenidae: *Calliopsis* sp. *Perdita hirticeps*. Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*). *Melissodes nigracauda* (M & N) – thought possibly to be oligolectic on *Stephanomeria*. Robust Long-horned Bee (*Melissodes robustior*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*). *Lasioglossum* sp. *Lasioglossum nevadense* (M & N). Megachilidae: *Ashmeadiella* sp. Melittidae: *Hesperapis* sp.

Stephanomeria elata. **Annual Mitra**. July-November.

Stephanomeria exigua. **Small Wirelettuce**. June-October.

Bees: Andrenidae: *Perdita hirticeps*. *Perdita malacothricis*. Apidae: Short Sun-Digger (*Anthophora curta*) (M & N). *Anthophora petrophila* (M & N). Urbane Digger (*Anthophora urbana*) (M & N). *Diadasia rinconis*. Lupine Long-horned Bee (*Melissodes lupinus*) – (M & N) (fq). *Melissodes nigracauda* (M & N) Robust Long-horned Bee (*Melissodes robustior*).

Melissodes tepida timberlakei. Nomada formula (M & N). Colletidae: Slevin's Cellophane Bee (Colletes slevini) (M & N) (fq). Halictidae: Ultra Green Sweat Bee (Agapostemon texanus) (M & N). Peridot Bee (Augochlorella pomoniella) (M & N). Lasioglossum kincaidii (M & N). Lasioglossum tegulariforme (M & N). Megachilidae: Anthidium edwardsii. Ashmeadiella californica. Dianthidium pudicum. Dianthidium parvum. Dianthidium ulkei. Common Little Leafcutter Bee (Megachile brevis). Parallel Leaf-cutting Bee (Megachile parallela). Western Leafcutter (Megachile perihirta).

Stephanomeria paniculata. **Tufted Wirelettuce**. June-October.

Stephanomeria pauciflora. **Desert Straw**. March-November.

Bees: Apidae: Anthophora petrophila (M & N). Urbane Digger (Anthophora urbana) (M & N). Halictidae: Lasioglossum tegulariforme (M & N).

Stephanomeria virgata. **Rod Wirelettuce**. July-October.

Bees: Andrenidae: Perdita hirticeps. Apidae: Short Sun-Digger (Anthophora curta). Anthophora petrophila (M & N). Urbane Digger (Anthophora urbana). Yellow-faced Bumblebee (Bombus vosnesenskii) (M & N). Prickly Ceratina (Ceratina acantha) (M & N). Arizona Ceratina (Ceratina arizonensis) (M & N). Ceratina micheneri (M & N). Dwarf Ceratina (Ceratina nanula) (M & N). Ceratina punctigena (M & N). Lupine Long-horned Bee (Melissodes lupinus). Melissodes tepida timberlakei. Halictidae: Ultra Green Sweat Bee (Agapostemon texanus) (M & N). Peridot Bee (Augochlorella pomoniella) (M & N). Wide-striped Sweat Bee (Halictus farinosus). Lasioglossum incompletum (M & N). Tansy Mustard Sweat Bee (Lasioglossum sisymbrii). Titus' Lasioglossum (Lasioglossum titusi) (M & N). Megachilidae: Dianthidium ulkei. Common Little Leaf-cutter Bee (Megachile brevis). Megachile montivaga. Western Leafcutter (Megachile perihirta).

Popular with butterflies.

Stephanomeria virgata ssp. pleurocarpa. **Tall Stephanomeria**. August-October.

In early Pinnacles National Monument surveys, native bee visits were rated as rare.

Streptanthus sp.

Bees: Apidae: Edward's Bumblebee (Bombus edwardsii) (M & N). Yellow-faced Bumblebee (Bombus vosnesenskii) (M & N).

Streptanthus albidus. **Metcalf Canyon Jewelflower**. April-September.

Streptanthus anomalus. **Mt. Burdell Jewelflower**. May-June.

Streptanthus barbiger. **Bearded Jewelflower**. May-July.

Streptanthus batrachopus. **Mt. Tamulpais Jewelflower**. April-July.

Streptanthus brachiatus. **Socrates Mine Jewelflower**. May-June.

Streptanthus breweri. **Brewer's Jewelflower**. May-July.

Streptanthus callistus. **Mount Hamilton Jewelflower**. April-May.

Streptanthus fenestratus. **Tehipite Valley Jewelflower**. June-July.

Streptanthus glandulosus. **Bristly Jewelflower**. March-May.

Streptanthus hesperidis. **Green Jewel-flower**. May-July.

Streptanthus hispidus. **Mount Diablo Jewelflower**. March-June.

Streptanthus morrissnii. **Morrison's Jewelflower**. June.

Streptanthus niger. *Streptanthus glandulosus* ssp. *niger*. **Tiburón Jewelflower**. May-June.

Streptanthus tortuosus. **Shield Plant**. April-July.

Bees: Andrenidae: Western Red-legged Miner Bee (*Andrena medionitens*) (M & N) (fq).
Andrena sp. Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). Edward's Bumblebee (*Bombus edwardsii*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Black-tailed Bumblebee (*Bombus melanopygus*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*).
Ceratina sp. Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis*). Colletidae: *Colletes* sp. Halictidae: *Halictus* sp. Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N). *Lasioglossum* sp. Megachilidae: *Anthidium mormonum*. *Dianthidium dubium*. *Dianthidium pudicum*. *Hoplitis albifrons*. *Hoplitis fulgida*. *Hoplitis hypocrita*. Dense-haired Mason Bee (*Osmia densa*). Western Forest Mason Bee (*Osmia nemoris*). *Osmia visenda*.

Preston, R. (1994). Pollination Biology of *Streptanthus tortuosus* (Brassicaceae). *Madroño*, 41(2), 138-147. Retrieved May 9, 2020, from www.jstor.org/stable/41425005

Stylomecon heterophylla aka *Papaver heterophyllum*. **Wind Poppy**. April-May.

Bees: Apidae: *Melissodes tepida timberlakei*.

Symphoricarpos sp. **Snowberries**.

Bees: Andrenidae: Lupine Miner Bee (*Andrena lupinorum*). Apidae: Black-notched Bumblebee (*Bombus bifarius*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Black-tailed Bumblebee

(*Bombus melanopygus*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Colletidae: Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N). Megachilidae: Patchwork Leafcutter Bee (*Megachile centuncularis*). *Megachile pugnata*.

Symphoricarpos albus. **Snowberry**. June-July.

Bees: Apidae: California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Red-belted Bumblebee (*Bombus rufocinctus*). Sitka Bumblebee (*Bombus sitkensis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) – (Brooks, 2020) (fq). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). “Dialictus” (Brooks, 2020).

Flies: Syrphidae: Drone Fly (*Ersitalis tenax*) (Brooks, 2020).

Symphoricarpos mollis. Creeping Snowberry. April-July.

Bees: Megachilidae: *Megachile melanophaea*.

Symphotrichum sp. Many formerly assigned to **Aster**. Old “aster” records here.

Bees: Andrenidae: Charming Miner Bee (*Calliopsis scitula*). Apidae: Short Sun-Digger (*Anthophora curta*). *Anthophora exigua*. *Anthophora flavocincta*. *Anthophora petrophila*. Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Western Bumblebee (*Bombus occidentalis*). Sitka Bumblebee (*Bombus sitkensis*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Prickly Ceratina (*Ceratina acantha*). Fuzzy-horned Bumblebee (*Bombus mixtus*). *Melissodes appressus*. *Melissodes bimatrix*. *Melissodes lustrus*. *Melissodes melanurus*. Small Long-horned Bee (*Melissodes microstictus*). Pale-marked Long-horned Bee (*Melissodes pallidisignata*). Robust Long-horned Bee (*Melissodes robustior*). *Melissodes tepida timberlakei*. Colletidae: Hyaline Cellophane Bee (*Colletes hyalinus*). *Colletes phaceliae*. Halictidae: Peridot Bee (*Augochlorella pomoniella*). Ligated Furrow Bee (*Halictus ligatus*). Orange-legged Furrow Bee (*Halictus rubicundus*). *Lasioglossum cooleyi* (M & N). Titus’ *Lasioglossum* (*Lasioglossum titusi*) (M & N). Megachilidae: Ashmeadiella cubiceps. Porter’s Cuckoo Leafcutter (*Coelioxys porterae*). Say’s Cuckoo Leafcutter (*Coelioxys sayi*). *Dianthidium ulkei*. Horn-faced Leafcutter Bee (*Megachile fidelis*). Flat-tailed Leafcutter Bee (*Megachile mendica*). *Megachile montivaga*. *Megachile nevadensis*. Alfalfa Leafcutter (*Megachile rotundata*). Colorado Osmia (*Osmia coloradensis*). *Osmia paradisica*. *Osmia trevoris*. Small Indigo Mason Bee (*Osmia tristella*).

Symphotrichum chilense. *Aster chilensis*. **Pacific Aster**. July -August.

Bees: Apidae: Honeybee (*Apis mellifera*). Western Bumblebee (*Bombus occidentalis*) (Laine). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Lupine Long-horned Bee (*Melissodes lupinus*). Pale-marked Longhorn Bee (*Melissodes pallidisignatus*). *Nomada formula* (M & N). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*) (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*) (M & N).

Symphotrichum lanceolatum. *Aster lanceolatus*. **White Panicle Aster**. July-August.

Bees: Apidae: Honeybee (*Apis mellifera*). Red-belted Bumblebee (*Bombus rufocinctus*). Colletidae: Kincaid's Cellophane Bee (*Colletes kincaidii*). Mesilla Masked Bee (*Hylaeus mesillae*). Modest Masked Bee (*Hylaeus modestus*). Halictidae: Ultra Green Sweat Bee (*Agapostemon texanus*). Bicolored Striped Sweat Bee (*Agapostemon virescens*). *Halictus ligatus*. Orange-footed Furrow Bee (*Halictus rubicundus*). Megachilidae: Red-footed Cuckoo Leaf-cutter (*Coelioxys rufitarsis*). Common Little Leaf-cutter Bee (*Megachile brevis*). Broad-handed Leafcutter (*Megachile latimanus*). Flat-tailed Leafcutter Bee (*Megachile mendica*). Golden-tailed Leafcutter (*Megachile relativa*).

Symphotrichum lentum. *Aster lentus* var. *sonomensis*. Also a variety of *Aster chilensis*. **Suisun Marsh Aster**. May - November.

Symphotrichum spathulatum. *Aster occidentalis*. *Aster delectabilis*. **Western Mountain Aster**. July-September.

Bees: Apidae: Small Long-horned Bee (*Melissodes microstictus*). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Halictidae: *Lasioglossum trizonatum* (M & N). Megachilidae: *Anthidium mormonum*. *Ashmeadiella californica*. *Heriades cressoni*. *Megachile montivaga*.

Symphotrichum subspicatum. *Aster subspicatus*. **Douglas Aster**. June-September.

Symphotrichum subulatum. *Aster exilis*, *Aster subulatus*. **Eastern Annual Saltmarsh Aster**. June-October.

Bees: Apidae: *Melissodes appressus*. Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes sternsi*. California Cuckoo Bee (*Xeromelecta californica*) (M & N). Halictidae: *Halictus ligatus* (M & N). *Lasioglossum incompletum* (M & N).

Tanacetum sp. **Tansy**.

Bees: Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*).

Tanacetum bipinnatum. *Tanacetum camphoratum*. **Dune Tansy**. July-October.

Taraxacum sp. **Dandelion**. Realized rather late there actually is a locally native species of this genus!

Bees: Andrenidae: Caerulean Miner Bee (*Andrena caerulea*) (M & N). Blue-and-Black *Andrena* (*Andrena nigrocaerulea*) (M & N) (fq). Apidae: Edward's Bumblebee (*Bombus edwardsii*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Common Chimney Bee (*Diadasia bituberculata*) (M & N). *Diadasia laticauda*. Dimorphic Mountain Digger (*Habropoda tritissima*).

Taraxacum californicum. **California Dandelion**. May-August. A rare native species; how comparable in insect usage to the ubiquitous non-native species, not sure, likely rather.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Brooks, 2020). Colletidae: *Colletes* sp. (Brooks, 2020).

Flies: Bombyliidae: *Lepidanthrax* sp. (Brooks, 2020) [*Lepidanthrax oribates* is a species reported in Marin County on iNaturalist; these observations in San Mateo County on San Bruno Mountain].

Taraxia ovata. *Camissonia ovata*. *Oenothera ovata*. **Goldeneggs**. February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena chalybaea* (M & N) (fq) "Oligolectic on *Camissonia ovata*." *Andrena chlorosoma* (M & N). Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N). *Andrena oenotherae* (M & N) (fq). *Andrena suavis*. Apidae: Dwarf Ceratina (*Ceratina nanula*) (M & N).

Tetrapteron gracilliflorum. *Camissonia gracilliflora*. *Oenothera gracilliflora*. **Hill Sun Cup**. March-April.

Thermopsis sp. **False Lupine**.

Bees: Megachilidae: Bufflehead Mason Bee (*Osmia bucephala*).

Thermopsis californica. **California Goldenbanner**. April-October.

Thermopsis gracilis. *Thermopsis macrophylla* var. *venosa*. **Slender Goldenbanner**. March-July.

Thermopsis macrophylla. **Common False Lupine**. April-June.

Bees: Apidae: Bumblebee Digger (*Anthophora bomboides*) (M & N). Monk Longhorn (*Eucera frater albopilosa*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N).

Thysanocarpus curvipes. **Fringe Pod**. February-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*) (M & N). Golden-Haired Miner Bee (*Andrena auricoma*) (M & N). *Andrena candidiformis* (M & N). *Andrena orthocarpi* (M &

N). Orange-banded Andrena (*Andrena prunorum*) (M & N). Colletidae: *Hylaeus nunenmacheri* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as common in one year.

Thysanocarpus laciniatus. **Mountain Fringepod**. March-May.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Thysanocarpus radians. **Ribbed Fringepod**. March-April.

Toxicodendron diversilobum. *Rhus diversiloba*. **Poison Oak**. March-June.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena atypica* (M & N). Golden-Haired Miner Bee (*Andrena auricoma*). Green-bellied Miner Bee (*Andrena chlorogaster*) (M & N). Alice's Andrena (*Andrena mackieae*). *Andrena orthocarpi*. Lonely Miner (*Andrena sola*). *Andrena vandykei* (M & N). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). *Hylaeus nunenmacheri* (M & N). Buckwheat Masked Bee (*Hylaeus polifolii*) (M & N). *Rudbeckia* Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N).

Relatively, in a Pinnacles National Monument survey, native bee visits were rare.

Toxicoscordion sp. *Zigadenus*. **Deathcamas**.

Bees: Apidae: Fuzzy-horned Bumblebee (*Bombus mixtus*).

Toxicoscordion fontanum. *Zigadenus fontanus*. **Marsh Zigadenus**. April-June.

Toxicoscordion fremontii. *Zigadenus fremontii*. *Zygadenus fremontii*. **Fremont's Star Lily**. March-May.

Bees: Andrenidae: Deathcamas Miner Bee (*Andrena astragali*). *Andrena perimelas* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Flies: Syrphidae: *Dasysyrphus* sp. (Correa).

Toxicoscordion micranthum. *Zigadenus micranthus*. **Small-flowered Star Lily**. April-July.

Toxicoscordion paniculatum. *Zigadenus paniculatus*. **Foothill Deathcamas**. May-June.

Bees: Andrenidae: Deathcamas Miner Bee (*Andrena astragali*).

Some recent literature:

Cane, J.H. 2018. Co-dependency between a specialist *Andrena* bee and its death camas host, *Toxicoscordion paniculatum*. *Arthropod-Plant Interactions* 12: 657–662.
<https://doi.org/10.1007/s11829-018-9626-9>

James H Cane, Dale R Gardner, Melissa Weber, 2020. Neurotoxic alkaloid in pollen and nectar excludes generalist bees from foraging at death-camas, *Toxicoscordion paniculatum* (Melanthiaceae), *Biological Journal of the Linnean Society*, , blaa159,
<https://doi.org/10.1093/biolinnean/blaa159>

Toxicoscordion venenosum. *Zigadenus venenosus*. **Meadow Deathcamas**. May-July.

Bees: Andrenidae: *Andrena amphibola*.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Triantha occidentalis. *Tofieldia occidentalis*. **Western False Aspodel**. July-September.

Bees: Andrenidae: Deathcamas Miner Bee (*Andrena astragali*).

Trianthema portulacastrum. *Sesuvium portulacastrum* **Desert Horsepurslane**. June-November.

Bees: Halictidae: *Agapostemon obliquus*. *Halictus tripartitus*.

Trichostema sp.

Bees: Andrenidae: *Perdita claypolei*. Apidae: Urbane Digger (*Anthophora urbana*) (M & N). California Bumblebee (*Bombus californicus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Western Bumblebee (*Bombus occidentalis*) (M & N). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Dwarf Ceratina (*Ceratina nanula*) (M & N). *Diadasia laticauda*. Dimorphic Mountain Digger (*Habropoda tritissima*). *Nomada formula* (M & N). California Longhorn-Cuckoo (*Triepeolus californicus*) (M & N). Colletidae: *Hylaeus conspicuus* (M & N). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Megachilidae: *Anthidium edwardsii*. Yellowish Green Mason Bee (*Osmia calla*). *Osmia montana*. *Protosmia rubifloris*.

Trichostema laxum. **Turpentine Weed**. August-September.

Bees: Apidae: Clarkia Ceratina (*Ceratina sequoiae*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N).

Attracts hummingbirds.

Trichostema lanceolatum. **Vinegarweed**. August-October.

Bees: Apidae: Short Sun-Digger (*Anthophora curta*). *Anthophora flavocincta*. Urbane Digger (*Anthophora urbana*). California Bumblebee (*Bombus californicus*). Crotch's Bumblebee (*Bombus crotchii*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Lupine Long-horned Bee (*Melissodes lupinus*). *Melissodes sternsi*. *Melissodes tepida timberlakei*. *Melissodes tessellatus* Squash Bee (*Peponapis pruinosa*). California Cuckoo Bee (*Xeromelecta californica*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Valley Carpenter Bee (*Xylocopa varipuncta*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus tripartitus* (M & N). *Lasioglossum incompletum* (M & N). *Lasioglossum nevadense* (M & N). *Lasioglossum tegulariforme* (M & N). Megachilidae: Northern Rotund-Resin Bee (*Anthidiedullum notatum*). *Anthidium edwardsii*. *Chelostoma minutum*. *Dianthidium dubium*. *Dianthidium pudicum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile coquilletii*. Western Leafcutter (*Megachile perihirta*).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year and rare in two years.

Popular with Woodland Skipper butterflies and attracts hummingbirds.

Trifolium sp. **Clover**. Most records do not specify any particular species; for the genus:

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Green-bellied Miner Bee (*Andrena chlorogaster*). Pale-faced Miner Bee (*Andrena pallidifovea*). Clover *Andrena* (*Andrena plana*) fq. *Andrena transnigra*. Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Black-notched Bumblebee (*Bombus bifarius*). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Eucera actiosa* – (M & N) (fq). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N) (fq). Delphinium Long-horned Bee (*Eucera delphinii*) (M & N). Brother Long-horned Bee (*Eucera frater*). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). *Melissodes tepida timberlakei* (M & N) (fq). Colletidae: Slender-faced Masked Bee (*Hylaeus leptocephalus*). Halictidae: *Agapostemon femoratus* (M & N). Orange-legged Furrow Bee (*Halictus rubicundus*). *Halictus tripartitus* (M & N). Megachilidae: *Anthidium collectum*. European Wool Carder Bee (*Anthidium manicatum*). *Anthidium mormonum*. Pacific Wool-carder Bee (*Anthidium palliventre*). *Dianthidium dubium*. *Hoplitis producta*. *Megachile angularum*. Alfalfa Leaf-cutter. *Megachile texana*. Bufflehead Mason Bee (*Osmia bucephala*). Dense-haired Mason Bee (*Osmia densa*). *Osmia malina*. Western Forest Mason Bee (*Osmia nemoris*). Black-faced Mason Bee (*Osmia nigrifrons*). Tooth-bellied Mason Bee (*Osmia odontogaster*). Friendly Mason Bee (*Osmia*

proxima). Texas *Osmia* (*Osmia texana*). *Osmia trevoris*. Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*).

Trifolium albopurpureum. **Rancheria Clover**. March-June.

Bees: Apidae: *Eucera lunata* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Trifolium amoenum. **Showy Indian Clover**. April-June.

Trifolium barbigerum. *Trifolium minutissimum*. **Bearded Clover**. February-May.

Trifolium bifidum. **Notchleaf Clover**. April-June.

Trifolium buckwestiorum. **Santa Cruz Clover**. April-October.

Trifolium ciliolatum. **Tree Clover**. April-May.

Trifolium columbinum. **Olive Clover**. April-May.

Trifolium cyathiferum. **Bowl Clover**. May-August.

Trifolium depauperatum. **Cowbag Clover**. February-May.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Trifolium dichotomum. **Branched Indian Clover**. March-May.

Trifolium fucatum. **Bull Clover**. April-June.

Bees: Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N).

Trifolium gracilentum. **Pinpoint Clover**. April-June.

Bees: Andrenidae: Clover *Andrena* (*Andrena plana*) (M & N) (fq). Apidae: Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Halictidae: *Halictus ligatus* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Trifolium grayi. **Gray's Clover**. April-June.

Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine).

Trifolium hydrophilum. **Saline Clover**. April-June.

Trifolium longipes. **Long-stalked Clover**. March-May.

Bees: Andrenidae: *Andrena transnigra*. Apidae: Urbane Digger (*Anthophora urbana*). Honeybee (*Apis mellifera*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Megachilidae: *Osmia physariae*.

Trifolium macraei. **Chilean Clover**. March-May.

Trifolium macrocephalum. **Big-headed Clover**. April-May.

Trifolium microcephalum. **Maiden Clover**. April-June.

Bees: Andrenidae: Clover *Andrena* (*Andrena plana*) – (M & N) (fq). Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Dwarf *Ceratina* (*Ceratina nanula*) (M & N). *Nomada* spp. (M & N). Halictidae: Tansy Mustard Sweat Bee (*Lasioglossum sisymbrii*) (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Trifolium microdon. **Thimble Clover**. April-June.

Trifolium obtusiflorum. **Creek Clover**. April-July.

Bees: Apidae: California Bumblebee (*Bombus californicus*). Megachilidae: *Antidium edwardsii*.

Trifolium oliganthum. **Fewflower Clover**. April-May.

Trifolium oliveaceum. **Olive Clover**. April-May.

Trifolium polyodon. **Pacific Grove Clover**. April-June.

Trifolium variegatum. *Trifolium appendiculatum*. **Whitetip Clover**. March-July.

Trifolium wildenovii. *Trifolium tridentatum*. **Tomcat Clover**. April-May.

Bees: Andrenidae: Clover *Andrena* (*Andrena plana*) – (M & N) (fq). Apidae: Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). *Eucera actiosa* (M & N) (fq). *Eucera lunata*. Halictidae: *Lasioglossum cooleyi* (M & N). Megachilidae: *Osmia gabrielis*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in one year, rare in two years.

Trifolium wormskioldii. *Trifolium involucratum*. **Springbank Clover**. May-June.

Bees: Apidae: California Bumblebee (*Bombus californicus*). Prickly Ceratina (*Ceratina acantha*) (M & N). *Melissodes tepida timberlakei* (M & N). Megachilidae: *Anthidium banningense*. *Anthidium edwardsii*. Wester Leafcutter (*Megachile perihirta*). Large Indigo Mason Bee (*Osmia atrocyanea*). Blue Mason Bee (*Osmia cyanella*).

Trifolium variegatum. **Whitetip Clover**. March-July.

Bees: Andrenidae: Clover Andrena (*Andrena plana*) – (M & N) (fq). Apidae: California Bumblebee. Yellow-faced Bumblebee (*Bombus vosnesenskii*). *Melissodes tepida timberlakei*. Halictidae: *Halictus tripartitus* (M & N). Megachilidae: *Anthidium edwardsii*. *Anthidium illustre*. *Ashmeadiella timberlakei*. *Hoplitis producta*. *Hoplitis remotula*. *Megachile angelarum*. Common Little Leaf-cutter Bee (*Megachile brevis*). *Megachile gentilis*. Yellowish Green Mason Bee (*Osmia calla*). *Osmia clarescens*. *Osmia gabrielis*. Little Queen Mason Bee (*Osmia regulina*). *Osmia visenda*.

Triphysaria eriantha. *Orthocarpus erianthus*. **Butter ‘n Eggs**. February-April.

Bees: Andrenidae: Golden-Haired Miner Bee (*Andrena auricoma*). Small Green Miner Bee (*Andrena microchlora*). *Andrena orthocarpi*. Apidae: *Nomada obscurella*. Halictidae: *Lasioglossum olympiae* (M & N).

Triphysaria eriantha ssp. *rosea*. *Orthocarpus erianthus roseus*. **Pink Butter ‘n Eggs**. February-April.

Bees: Halictidae: *Lasioglossum olympiae* (M & N). *Lasioglossum pavonotum* (M & N).

Triphysaria floribunda. *Orthocarpus floribundus*. **San Francisco Owl’s Clover**. April-June.

Triphysaria micrantha. *Orthocarpus bidwellae*. **Little Butter ‘n’ Eggs**. March-May.

Triphysaria pusilla. *Orthocarpus pusillus*. **Little Owl’s Clover**. March-May.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Appears to be ant-pollinated. *Formica lasioides*. Cf. *Formica oregonensis*.

Kincaid, T. (1963). “The Ant-Plant, *Orthocarpus pusillus*, Bentham.” *Transactions of the American Microscopical Society*, 82(1), 101-105. doi:10.2307/3223826

Triphysaria versicolor. *Orthocarpus faucibarbus albidus*. **Yellowbeak Owl’s Clover**. February-May.

Halictidae: *Lasioglossum olympiae* (M & N).

Triphysaria versicolor ssp. *faucibarbus*. *Orthocarpus faucibarbus*. **Yellow Owl’s Clover**.

February-May.

Bees: Andrenidae: *Andrena orthocarpus*. Clover *Andrena* (*Andrena plana*). Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Triphysaria versicolor ssp. *versicolor*. **Yellow Owl's Clover**. February-May.

Bees: Western Bumblebee (*Bombus occidentalis*) (Laine).

Triteleia grandiflora. *Brodiaea bicolor*. *Brodiaea grandiflora*. **Largeflower Triteleia**. April-June.

Apidae: Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N).

Triteleia hyacinthina. *Brodiaea hyacinthina*. *Milla hyacinthina*. *Triteleia lactea*. **White Brodiaea**. April-June.

Bees: Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Lasioglossum olympiae* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as rare in one year.

Popular with butterflies.

Triteleia ixioides. *Brodiaea lutea*. **Pretty Face**. May-June.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). *Anthophorula nitens* (M & N). California Bumblebee (*Bombus californicus*) (M & N). Yellow-fronted Bumblebee (*Bombus flavifrons*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Prickly *Ceratina* (*Ceratina acantha*) (M & N). Delphinium Long-horned Bee (*Eucera delphinii*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). Megachilidae: *Trachusa perdita*.

Triteleia laxa. *Brodiaea laxa*. **Ithuriel's Spear**. April-July.

Bees: Apidae: Urbane Digger (*Anthophora urbana*) (M & N). Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). *Ceratina tejonensis* (M & N). *Diadasia angusticeps* (M & N). *Eucera actiosa* (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*). Delphinium Long-horned Bee (*Eucera delphinii*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). Striped Long-horned Bee (*Eucera virgata*). Dimorphic Mountain Digger (*Habropoda tritissima*). Halictidae: Wide-striped Sweat Bee (*Halictus farinosus*). *Halictus tripartitus* (M & N). *Lasioglossum cooleyi* (M & N). *Lasioglossum olympiae* (M & N). Megachilidae: Utah Wool-carder Bee (*Anthidium utahense*). *Chelostoma phaceliae*. *Osmia granulosa*. Western Forest Mason Bee (*Osmia nemoris*).

Popular with butterflies, notably Pipevine Swallowtail.

Triteleia lugens. *Brodiaea lugens*. *Calliprora ixioides* var. *lugens*. **Coast Range Triteleia**. April-June.

Bees: Megachilidae: *Anthidium illustre*.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years, rare in one year.

Triteleia peduncularis. *Brodiaea peduncularis*. *Milla peduncularis*. *Hookera peduncularis*. **Marsh Triteleia**. May-July.

Tropidocarpum gracile. **Dobie Pod**. March-April.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena crudeni*. Piper's Miner Bee (*Andrena piperi*) (M & N) (fq). Apidae: Honeybee (*Apis mellifera*).

Turritis glabra. *Arabis glabra*. **Tower Rockcress**. March-June.

Bees: Megachilidae: *Osmia montana*. *Osmia tersula*.

Vaccinium sp **Huckeberry or blueberry**. Most of these likely refer to *V. ovatum*.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). Yellow-legged Miner Bee (*Andrena cressonii*). *Andrena forbesii*. *Andrena fragilis*. Hippotes's Miner Bee (*Andrena hippotes*). *Andrena nivalis*. Orange-banded *Andrena* (*Andrena prunorum*). *Andrena striatifrons* (M & N). *Andrena transnigra* (M & N). Apidae: Black-notched Bumblebee (*Bombus bifarius*) (M & N). Fog-belt Bumblebee (*Bombus caliginosus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*) (M & N). Sitka Bumblebee (*Bombus sitkensis*). Megachilidae: Golden-tailed Leafcutter (*Megachile relativa*). Blue Orchard Bee (*Osmia lignaria*). *Osmia sandhousae*.

Vaccinium cespitosum. **Dwarf Bilberry**. June-August.

Vaccinium ovatum. **Evergreen Huckleberry**. February-June.

Bees: Apidae: Sitka Bumblebee (*Bombus sitkensis*). *Ceratina micheneri* (M & N).

Vaccinium parvifolium. **Red Huckleberry**. March-May.

Umbellularia californica. **California Laurel**. November-May.

Bees: Apidae: Honeybee (*Apis mellifera*).

Uropappus lindleyi. Microseris lindleyi. Microseris linearifolia. **Silverpuffs**. March-May.

Bees: Andrena subchalybea (M & N) (fq) [active early morning].

Veratrum sp. **Cornlily**.

Bees: Apidae: Indiscriminate Cuckoo Bumblebee (Bombus insularis) (M & N). Yellow-faced Bumblebee (Bombus vosnesenskii) (M & N).

Veratrum californicum. **California False Hellebore**. April-May. Approaches our area closely.

Veratrum fimbriatum. **Fringed Cornlily**. July-September.

Veratrum viride. **American False Hellebore**. August-September.

Verbena sp.

Bees: Apidae: California Bumblebee (Bombus californicus). California Cuckoo Bee (Xeromelecta californica) (M & N). Megachilidae: Short Mason Bee (Osmia brevis). Osmia penstemonis.

Verbena bracteata. **Bracted Verbena**. May-September.

Bees: Apidae: Urbane Digger (Anthophora urbana).

Verbena hastata. Blue Vervain. **Swamp Verbena**. July-August.

Bees: Apidae: Honeybee (Apis mellifera) sn fq. Great Northern Bumblebee (Bombus fervidus). Red-belted Bumblebee (Bombus rufocinctus). Agile Long-horned Bee (Melissodes agilis). Halictidae: Bicolored Striped Sweat Bee (Agapostemon virescens). Halictus ligatus. Orange-legged Furrow Bee (Halictus rubicundus). Megachilidae: Anthidium maculosum. Red-footed Cuckoo Leaf-cutter (Coelioxys rufitarsis). Common Short Leaf-cutter Bee (Megachile brevis). Patchwork Leafcutter Bee (Megachile centuncularis). Alfalfa Leaf-cutter (Megachile rotundata).

Flies: Common Oblique Stripetail (Allograpta obliqua) (Hilty). Thick-legged Hoverfly (Syritta pipiens) (Hilty). Calligrapher Fly (Toxomerus marginatus) (Hilty).

Popular with butterflies.

Verbena lasiostachys. **Western Vervain**. April-September.

Bees: Urbane Digger (Anthophora urbana). Apidae: Honeybee (Apis mellifera). Yellow-faced Bumblebee (Bombus vosnesenskii). Prickly Ceratina (Ceratina acantha) (M & N). Ceratina micheneri (M & N). Dwarf Ceratina (Ceratina nanula) (M & N). Pacific Little Carpenter Bee (Ceratina pacifica) (M & N). Clarkia Ceratina (Ceratina sequoiae) (M & N). Ceratina

tejonensis. *Diadasia nigrifrons* (M & N) (fq). American Cellophane-cuckoo Bee (*Epeolus americanus*) (M & N). Lupine Long-horned Bee (*Melissodes lupinus*) (M & N). Colletidae: Mesilla Masked Bee (*Hylaeus mesillae*) (M & N). Megachilidae: *Anthidium edwardsii*. *Anthidium maculosum*. *Ashmeadiella aridula astragali*. *Dianthidium ulkei*. *Megachile angularum*. Horn-faced Leafcutter Bee (*Megachile fidelis*). Colorado Osmia (*Osmia coloradensis*). Blue Mason Bee (*Osmia cyanella*). Mellitidae: Clarkia Evening Bee (*Hesperapis regularis*) (M & N).

Verbena lasiostachys var. *scabrida*. *Verbena robusta*. **Robust Vervain**. May-September.

In early Pinnacles National Monument surveys, native bee visits were rated as rare in two years.

Veronica sp. **Speedwell** or Brooklime.

Bees: Apidae: Great Northern Bumblebee (*Bombus fervidus*). Yellow-faced Bumblebee (*Bombus vosnesenskii*) (M & N). Megachilidae: European Wool Carder Bee (*Anthidium manicatum*). Flat-tailed Leafcutter Bee (*Megachile mendica*).

Veronica americana. **American Brooklime**. July-August.

Bees: Andrenidae: *Andrena candidiformis* (M & N). Colletidae: Rudbeckia Yellow-faced Bee (*Hylaeus rudbeckiae*) (M & N).

Veronica peregrina. **Neckweed**. March-July.

Flies: Syrphidae: Calligrapher Fly (*Toxomerus marginatus*) (Hilty).

Viburnum sp. **Viburnum**.

Bees: Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N).

Viburnum ellipticum. **Common Viburnum**. May-June.

Vicia sp. **Vetch**. Most difficult to indentify; listed for the genus:

Bees: Andrenidae: Clover Andrena (*Andrena plana*). Apidae: Bumblebee Digger (*Anthophora bomboides*). Black-notched Bumblebee (*Bombus bifarius*) (M & N). California Bumblebee (*Bombus californicus*). Fog-belt Bumblebee (*Bombus caliginosus*) (M & N). Crotch's Bumblebee (*Bombus crotchii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Yellow-fronted Bumblebee (*Bombus flavifrons*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Western Bumblebee (*Bombus occidentalis*) (M & N). Red-belted Bumblebee (*Bombus rufocinctus*). Sitka Bumblebee (*Bombus sitkensis*). Sonoran Bumblebee (*Bombus sonorus*) (M & N). Van Dyke's Bumblebee (*Bombus vandykei*) (M & N). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edwards's Long-horned

Bee (*Eucera edwardsii*) – (M & N) (fq). Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). California Mountain Digger (*Habropoda depressa*) (M & N). Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Megachilidae: *Megachile frigida*. *Megachile frugalis*. *Megachile gemula*. Broad-haned Leafcutter (*Megachile latimanus*). *Megachile melanophaea*. Golden-tailed Leafcutter (*Megachile relativa*). Alfalfa Leaf-cutter (*Megachile rotundata*). Large Indigo Mason Bee (*Osmia atrocyanea*). Dense-haired Mason Bee (*Osmia densa*). Blue Orchard Bee (*Osmia lignaria*). *Osmia nifoata*. Black-faced Mason Bee (*Osmia nigrifrons*). Black-bearded Mason Bee (*Osmia nigrobarbata*). *Osmia trevoris*.

Vicia americana. *Vicia californica*. **American Vetch**. May-June.

Bees: Apidae: Edward's Digger (*Anthophora edwardsii*). Orange-tipped Wood-Digger (*Anthophora terminalis*). Urbane Digger (*Anthophora urbana*) (M & N). Honeybee (*Apis mellifera*). California Bumblebee (*Bombus californicus*). Common Chimney Bee (*Diadasia bituberculata*). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N) (fq). Monk Longhorn (*Eucera frater albopilosa*) (M & N) (fq). *Eucera stretchii* (M & N). Megachilidae: *Osmia albolateralis*. Large Indigo Mason Bee (*Osmia atrocyanea*). Bufflehead Mason Bee (*Osmia bucephala*). Dense-haired Mason Bee (*Osmia densa*). *Osmia integra*. Western Forest Mason Bee (*Osmia nemoris*). Black-faced Mason Bee (*Osmia nigrifrons*). *Osmia paradisica*. *Osmia penstemonis*. *Osmia visenda*.

Vicia gigantea. **Giant Vetch**. April-June.

Bees: Apidae: Yellow-fronted Bumblebee (*Bombus flavifrons*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Sitka Bumblebee (*Bombus sitkensis*). Bees: Apidae: Yellow-faced Bumblebee (*Bombus vosnesenskii*) (Laine). Megachilidae: Dense-haired Mason Bee (*Osmia densa*).

Vicia hassei. **Hasse's Vetch**. March-May.

Vicia ludoviciana. **Louisiana Vetch**. March-June.

Viola sp. **Violet**.

Bees: Andrenidae: *Andrena nigrihirta*. Apidae: Black-tailed Bumblebee (*Bombus melanopygus*) (M & N). Megachilidae: *Anthidium collectum*. Blue Orchard Bee (*Osmia lignaria*). *Protosmia rubifloris*.

Viola adunca. **Blue Violet**. April-August.

Bees: Megachilidae: *Osmia albolateralis*. *Osmia dolerosa*. Friendly Mason Bee (*Osmia proxima*).

Viola cuneata. **Wedgeleaf Violet**. March-September.

Viola douglasii. **Douglas' Golden Violet**. February-May.

Viola glabella. **Stream Violet**. April-July.

Viola lobata. **Moose Horn Violet**. April-July.

Viola ocellata. **Twoeyed Violet**. April-May.

Viola pedunculata. **California Golden Violet**. February-April.

For bee visitation observations, this species was the 14th most popular in 2011, but not in the top 25 most popular plant species in 2012 in a Pinnacles National Monument study.

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in three years, rare in one year.

Viola praemorsa. **Canary Violet**. May-August.

Viola purpurea. **Goosefoot Violet**. **Mountain Violet**. April-June.

Bees: Megachilidae: *Osmia albolateralis*. Dense-haired Mason Bee (*Osmia densa*). *Protosmia rubifloris*.

Vitis sp.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N).

Vitis californica. **California Wild Grape**. May-June.

Wyethia sp.

Bees: Andrenidae: Striped Mining Bee (*Andrena angustitarsata*). *Andrena chalybioides*. Pale-faced Miner Bee (*Andrena pallidifovea*). *Andrena pensilis*. *Andrena puthua*. Subtle Miner Bee (*Andrena subtilis*). *Andrena transnigra*. Apidae: California Bumblebee (*Bombus californicus*). Edward's Bumblebee (*Bombus edwardsii*) (M & N). Great Northern Bumblebee (*Bombus fervidus*). Indiscriminate Cuckoo Bumblebee (*Bombus insularis*). Black-tailed Bumblebee (*Bombus melanopygus*). Fuzzy-horned Bumblebee (*Bombus mixtus*). Van Dyke's Bumblebee (*Bombus vandykei*). Yellow-faced Bumblebee (*Bombus vosnesenskii*). Dwarf Ceratina (*Ceratina nanula*). *Ceratina tejonensis*. *Eucera actiosa*. Horsefly-like Carpenter Bee (*Xylocopa tabaniformis orpifex*) (M & N). Halictidae: Ultra Green Sweat Bee (*Agaposemon texanus*). Wide-striped Sweat Bee (*Halictus farinosus*). *Lasioglossum allonotus* (M & N). Megachilidae: *Megachile gemula*. Western Leafcutter (*Megachile perihirta*). *Osmia albolateralis*. California Mason Bee (*Osmia californica*). Colorado Osmia (*Osmia coloradensis*). Blue Mason Bee (*Osmia cyanella*). Dense-haired Mason Bee (*Osmia densa*). *Osmia montana*. *Osmia visenda*.

Wyethia angustifolia. **Narrowleaf Mule Ears**. March-July.

Bees: Andrenidae: *Andrena suavis*. Apidae: Edward's Bumblebee (*Bombus edwardsii*) (M & N). *Eucera actiosa* (M & N). Cordley's Long-horned Bee (*Eucera cordleyi*) (M & N). Edward's Long-horned Bee (*Eucera edwardsii*) (M & N). *Eucera lunata* (M & N). Striped Long-horned Bee (*Eucera virgata*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Dufourea dentipes* (M & N). Wide-striped Sweat Bee (*Halictus farinosus*) (M & N). Titus' *Lasioglossum* (*Lasioglossum titusi*) (M & N).

Wyethia glabra. **Coast Range Mule Ears**. March-May.

Bees: Andrenidae: Greenish Burrowing Bee (*Andrena cuneilabris*) (M & N). Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). *Ceratina micheneri* (M & N). Pacific Little Carpenter Bee (*Ceratina pacifica*) (M & N). Megachilidae: Colorado Osmia (*Osmia coloradensis*).

Wyethia helenoides. **Whitehead Wyethia**. March-May.

Bees: Halictidae: *Halictus ligatus* (M & N).

In early Pinnacles National Monument surveys, native bee visits were rated as uncommon in two years, rare in one year.

Wyethia mollis. **Woolly Mule's Ears**. May-July.

Bees: Apidae: *Eucera actiosa* (M & N).

Zauschneria californica. Now *Epilobium canum*.

Zeltnera davyi. *Centaureum davyi*. **Davy's Centaury**. May-July.

Bees: Apidae: Prickly Ceratina (*Ceratina acantha*) (M & N). *Ceratina micheneri* (M & N). Dwarf Ceratina (*Ceratina nanula*) (M & N). Halictidae: Peridot Bee (*Augochlorella pomoniella*) (M & N). *Halictus tripartitus* (M & N).

Zeltnera exaltata. *Centaureum exaltatum*. **Tall Centaury**. May-August.

Zeltnera muehlenbergii. *Centaureum muehlenbergii*. Muehlenberg's Centaury. April-July.

Zeltnera trichantha. *Centaureum trichanthum*. **Alkali Centaury**. May-August.

Zeltnera venusta. *Centaureum venustum*. Charming Centaury. April-October.

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