

Native Plants and Lepidoptera Imperial County California

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Abronia gracilis. **Graceful Sand Verbena**. Nyctaginaceae. Likely nectar plant.

Abronia umbellata. **Pink Sand Verbena**. Nyctaginaceae. Nectar: Western Tiger Swallowtail, Painted Lady, California Tortoiseshell, Fiery Skipper. Moths visiting flowers include Sphingidae: White-lined Sphinx (*Hyles lineata*). Noctuidae: Cabbage Looper (*Trichoplusia ni*). (Moth flower visitors from Doubleday, 2012). Small white moths at night.

Nursery owner Patti Kreiberg says it is “incredibly more fragrant at night than during the day” – thus quite attractive to moths. Flowers all year.

Abronia villosa var. *villosa*. **Desert Sand Verbena**. Nyctaginaceae. Flower visitors include the Sleepy Orange, Painted Lady, West Coast Lady, White Checkered-Skipper, Fiery Skipper and White-lined Sphinx. February - July.

Sphingidae: A major host for the White-lined Sphinx (*Hyles lineata*). Its caterpillars, at times extremely abundant, were food for the aboriginal Cahuilla people.

Acamptopappus sphaerocephalus. **Desert Goldenhead**. **Rayless Goldenhead**. Asteraceae. Astereae. Nectar source for the Chalcedon Checkerspot. March - June.

Desert Goldenhead is a hostplant for Sagebrush Checkerspot in eastern San Diego County (Monroes).

Acmispon glaber was *Lotus scoparius*. **Chaparral Broom**. **Deerweed**. Fabaceae. Loteae. Nectar: Black Swallowtail, Whites, Sleepy Orange, Orange Sulphur, Harford's Sulphur, Painted Lady, Brown Elfin, Coastal Green Hairstreak, Gray Hairstreak, Acmon Blue, Marine Blue (fq), Silvery Blue, Ceraunus Blue, Funereal Duskywing, Fiery Skipper, Rural Skipper, Sandhill Skipper. March – August.

Chaparral Broom is a foodplant for Orange Sulphur, Harford's Sulphur, Coastal Green Hairstreak, Gray Hairstreak, Acmon Blue, Marine Blue, Silvery Blue, and Funereal Duskywing.

In an extensive laboratory test by Pratt & Ballmer, 14 species of lycaenid butterflies not known to use Fabaceae in nature were, nevertheless, successfully reared to adulthood on this plant!

Tortricidae: Omnivorous Leafroller (*Platynota stultana*).

Acmispon parviflorus was *Lotus micranthus*. **Hill Lotus**. Fabaceae. Loteae. March – May.

Hostplant for Acmon Blue.

Acmispon rigidus was *Lotus rigidus*. **Desert Lotus**. Fabaceae. Loteae. Nectar: Black Swallowtail. Gray Marble, Sara Orangetip, Sleepy Orange, Silvery Blue. March – May.

Hostplant for Silvery Blue.

1993 Jepson Manual: a ‘try’ species, ‘insufficiently tested but worth pursuing’ in cultivation, ‘especially in its native range’.

Acmispon strigosus was *Lotus strigosus*. **Bishop Lotus**. Fabaceae. Loteae. Nectar: California Patch. March – June.

Larval host for Orange Sulphur, Coastal Green Hairstreak, and Acmon Blue.

Noctuidae: Beet Armyworm or Small Mottled Willow (*Spodoptera exigua*) – feeding caterpillar photographed by Alice Abela in Santa Barbara County.

Acourtia microcephala. Asteraceae. Nassauvieae. **Sacapellote**. Nectar: Pale Swallowtail, American Lady, Painted Lady, Funereal Duskywing, and grass skippers. May - August.

Good for restoring degraded areas.

Adenophyllum cooperi. **Cooper Dyssodia**. **Cooper's Dogweed**. Asteraceae. Tageteae. Nectar: Sagebrush Checkerspot. April - June, September - November.

Adenophyllum porophylloides. **San Felipe Dyssodia**. Asteraceae. Tageteae. Estimated by Lynn Monroe a close second to Butterweed (*Senecio flaccidus* var. *douglasii*) as a butterfly magnet on a mid-November outing to Anza-Borrego State Park. March - June. October - December.

Caterpillar food plant for Dainty Sulphur (Monroes).

Adenostoma fasciculatum. **Chamise**. Rosaceae. Sorbarieae. Nectar: Chalcedon Checkerspot. Gray Hairstreak. Acmon Blue. Lompoc Blue [a segregate of Small Dotted-Blue] (Alice Abela). It seems it may be among secondary nectar sources in general. Shapiro finds that occasionally hill-topping butterflies simply rest on the flowers. May - June.

Paul Johnson reports observing what appeared to be feeding on scale insect exudate/mold on Chamise by the California Tortoiseshell, Red Admiral and California Sister.

Chamise is a larval host for Brown Elfin and even recorded for the Marine Blue.

Chamise itself is a hostplant for hemiparasitic plants that themselves are Lepidoptera resources, such as Oak Mistletoe (*Phoradendron leucarpum* subsp. *tomentosum*) (rarely).

Saturniidae: Electra Buckmoth (*Hemileuca electra*).

Agave deserti. **Desert Agave**. Agavaceae. May – July.

Larval host for California Giant-Skipper.

Allionia incarnata. **Trailing Four O'clock**. Nyctaginaceae. Nectar: Pipevine Swallowtail, Checkered White, Orange Sulphur (fq), Painted Lady, Bordered Patch, Variegated Fritillary, Ceraunus Blue, Arizona Powdered Skipper, White Checkered-Skipper, Common Sootywing, Eufala Skipper, Golden-headed Scallopwing. March - September.

Amaranthus blitoides. **Mat Amaranth**. Amaranthaceae.

Larval host for Common Sootywing (Berry Nall).

Amaranthus fimbriatus. **Fringe Amaranth**. Amaranthaceae.

Larval host for Common Sootywing.

Amaranthus palmeri. **Palmer's Pigweed**. Amaranthaceae.

A larval host for the Western Pygmy Blue (caterpillars collected from it by Berry Nall) and the Common Sootywing.

Ambrosia spp. **Ragweeds**. Asteraceae. Heliantheae. Ambrosiinae.

Reported as larval hosts for Common Sootywing but Scott (1986) notes this as an error, saying larvae refuse to eat them.

Noctuidae: *Ponometia acutus* reared on an *Ambrosia* species.

Ambrosia dumosa. **Burro-weed**. Asteraceae. Heliantheae. December – June.

Geometridae: Southern Emerald Moth (*Synchlora frondaria*).

Noctuidae: *Schinia dobla*.

Pyralidae: *Frechinia laetalis* (Powell & Opler, p. 170).

Tortricidae: *Eugnosta beevorana*. Omnivorous Leafroller (*Platynota stultana*).

Ambrosia salsola was *Hymenoclea salsola*. **Burrobush**. Asteraceae. Heliantheae. Ambrosiinae. February – June.

Noctuidae: *Ponometia elegantula* (Noctuidae) (recently documented by Jennifer Bundy).

Ammannia coccinea. **Scarlet Toothcup**. Lythraceae. Nectar: Checkered White. June - August.

Amsinckia intermedia. **Common Fiddleneck**. Boraginaceae. Nectar: Pipevine Swallowtail, Cabbage White, Checkered White, Sara Orangetip (fq), Sleepy Orange, Orange Sulphur, Painted Lady, Chalcedon Checkerspot, Gabb's Checkerspot, Silvery Blue (fq), Acmon Blue, and Funereal Duskywing. March - June.

Caterpillar plant for the Painted Lady.

Amsinckia menziesii. **Rancher's Fireweed**. Boraginaceae. Nectar: Desert Orangetip, Sara Orangetip, Gabb's Checkerspot, Western Pygmy Blue. May - July.

Amsinckia tessellata. **Bristly Fiddleneck**. Boraginaceae. Nectar: Black Swallowtail, Cabbage White, Checkered White, Spring White, Desert Orangetip, Sara Orangetip, Red Admiral, Painted Lady, Sagebrush Checkerspot, California Patch, Chalcedon Checkerspot, and Funereal Duskywing. February - June.

Caterpillar plant for the Painted Lady – the main and preferred host in Inyo County in the 1991 migration year.

Anemopsis californica. **Yerba Mansa**. Saururaceae. Nectar: Monarch, Northern White-Skipper. White-lined Sphinx. March - September.

Arctiidae: Salt Marsh Moth. *Estigmene acrea*. Reported in Windthread Blog, 9/13/2014, avidly consuming leaves – perhaps a favorite host, others have noted feeding damage on the leaves.

Anisocoma acaulis. **Scalebud**. Asteraceae. Cichorieae. Butterfly nectar plant. March – June.

Antirrhinum spp. **Snapdragons**. Plantaginaceae.

Snapdragons are hostplants for Common Buckeye.

Noctuidae: Scribbled Sallow (*Sympistis perscripta*).

Antirrhinum filipes. **Tangled Snapdragon**. Plantaginaceae. March – May.

Apocynum cannabinum. **Indian Hemp** or **Hemp Dogbane**. Apocynaceae. Nectar: Western Tiger Swallowtail, Pipevine Swallowtail. Cabbage White (fq), Checkered White, Clouded Sulphur, Orange Sulphur. Monarch (fq), Queen, Variegated Fritillary, Mourning Cloak, Painted Lady (fq), American Lady, West Coast Lady, Red Admiral, Viceroy, Common Buckeye. American Snout. Gray Hairstreak, Great Purple Hairstreak (fq), Brown Elfin, Reakirt's Blue. Common Sootywing (fq), Northern White Skipper, Sachem. Also nocturnal moths such as Ipsilon Dart (*Agrotis ipsilon*, Noctuidae) and Corn Earworm (*Helicoverpa zea*, Noctuidae).

Indian Hemp is a favorite nectar plant for the Great Purple Hairstreak.

Shapiro finds “basically all” butterflies come to the flowers of this plant. John Dennis back East listed 38 butterfly species for Indian Hemp. April - October.

Indian Hemp formerly thought a Monarch larval host, but in a test its caterpillars would rather die than eat it!

Arctiidae: Clio Tiger Moth (*Ectypia clio*).

Arctostaphylos glauca. **Bigberry Manzanita**. Ericaceae. Nectar: Red Admiral, Painted Lady, West Coast Lady, Common Buckeye, California Tortoiseshell, Brown Elfin, Salvia Snout Moth (*Pyrausta dapalis*) (Crambidae, a diurnal snout moth with red hindwings). Important winter food for Anna's Hummingbird. December - March.

Foodplant for Brown Elfin.

Argemone munita. **Prickly Poppy**. Papaveraceae. Nectar: Pine White, Cabbage White, Painted Lady. Visited by nocturnal moths. August.

Aristida sp. **Three-awn**. Poaceae. Aristideae.

1992 Season Summary reports oviposition by Orange Skipperling on it, north end of the Dead Mountains, San Bernardino County (GB, JFE).

Aristida adscensionis. **Three-awn**.

Aristida californica. **California Three-awn**.

Aristida oligantha. **Oldfield Three-awn**.

Aristida purpurea. **Purple Three-awn**.

Artemisia spp. **Sagebrush**. Asteraceae. Anthemideae. “Monarch”. That this genus provides nectar seems to be a mistaken observation, likely of mere alighting, sunning or roosting misinterpreted, passed along by those who do not know better. Alternatively, a butterfly testing it for nectar, as they often do,

mistaken for an observation of being at nectar. Shapiro says, "Artemisia are wind pollinated and do not produce nectar. What would a butterfly get?"

Various *Artemisia* species serve as larval hosts for the Painted Lady and American Lady.

Artemisia dracunculus. **Tarragon**. Asteraceae. Anthemideae.

Artemisia ludoviciana. **Silver Wormwood**. Asteraceae. Anthemideae.

Foodplant for Painted Lady and American Lady.

Ssp. *albula* most commonly cultivated; best in zones 4-10, 14-24.

Arthrocnemum subterminale was *Salicornia subterminalis*. **Parish's Pickleweed**. Chenopodiaceae.

Western Pygmy Blue hostplant -- Steiner considers it third in importance in the San Francisco Bay area.

Asclepias spp. **Milkweeds**. Apocynaceae. Noted as using "milkweeds" as nectar: Monarch, Queen, Western Tiger Swallowtail, Two-tailed Swallowtail, Pipevine Swallowtail, Orange Sulphur, Cabbage White, Checkered White, Red Admiral, American Lady, Buckeye, Chalcedon Checkerspot. Brown Elfin Gray Hairstreak, Great Purple Hairstreak, Leda Ministreak, Acmon Blue, Mournful Duskywing.

All *Asclepias* spp. are larval hosts for Monarch and Queen.

Arctiidae: Clio Tiger Moth (*Ectypia clio*). *Euchaetes zella* (BugGuide).

Asclepias albicans. **Wax Milkweed**. **White-stemmed Milkweed**. Apocynaceae. Nectar: Queen, Monarch. Bumblebees. March - June.

Foodplant for Monarch and Queen.

Asclepias erosa. **Desert Milkweed**. Apocynaceae. Nectar: Swallowtail, Monarch, Queen, Ceraunus Blue. April - October.

Larval host for Monarch and Queen.

Arctiidae: "a lovely all-white tiger moth with pink on the underside of its head" (SoWestLep #2748, Allen).

Asclepias subulata. **Rush Milkweed**. **Jumete**. Apocynaceae. Nectar: Black Swallowtail, Dainty Sulphur, Queen (fq), Monarch, California Patch (fq), skippers. Nectar --*The Butterfly Gardener's Guide*. Among the 'Most Recommended' by *Desert Butterfly Gardening*. Also gets Ornate Checkered Beetle (*Trichodes ornatus*), bumblebees and spider wasps. Flowers more or less all year.

Larval host for Queen and Monarch, one of the most preferred by the Monarch.

Astragalus spp. **Milkvetches**. Fabaceae. Galegeae. Nectar: Western Tiger Swallowtail, Cabbage White. There are many species, few able to identify them; likely much "unknown" in this genus, with many more observations yet to be made!

Larval hosts for various Sulphurs and Blues; a very large genus!

Pyralidae: *Pima occidentalis* (Powell & Opler, p. 190).

Astragalus crotalarie. **Desert Rattleweed. Salton Milkvetch**. Fabaceae. Galegeae. January - April.

Larval host for Orange Sulphur and Ceraunus Blue (Monroes).

Astragalus douglasii var. *douglasii*. **Jacumba Milkvetch**. Fabaceae. Galegeae. April - July.

Larval host for Harford's Sulphur. Ceraunus Blue and Silvery Blue are possible.

Astragalus filipes. **Basalt Milkvetch**. Fabaceae. Galegeae. May – July.

1997 Season Summary reports as a hostplant for Silvery Blue.

Astragalus lentiginosus. **Freckled Milkvetch**. Fabaceae. Galegeae. Nectar: Black Swallowtail, Becker's White, Checkered White, Painted Lady, Acmon Blue, Silvery Blue. Flowers attract butterflies in the Mojave Desert – also hummingbirds and 19 species of solitary bees (Leslie Saul). May - July.

Silvery Blue ova found on it in San Bernardino County by John F. Emmel (1984 Season Summary). He reported ova and larvae on it in 1988 Season Summary.

Astragalus nuttallianus. **Nuttall Locoweed**. Fabaceae. Galegeae. Varieties flowering in the range of December - May

Astragalus palmeri. **Palmer's Locoweed**. Fabaceae. Galegeae. December - June.

Foodplant for Harford's Sulphur and Ceraunus Blue.

Athysanus pusillus. **Common Sandweed**. Brassicaceae. February - June.

Larval host for Sara Orangetip.

Atrichoseris platyphylla. **Gravel Ghost**. Asteraceae. Cichorieae. Nectar: Pale Swallowtail. February - May.

Atriplex canescens. **Fourwing Saltbush**. Chenopodiaceae.

Foodplant for the Western Pygmy Blue and Mojave Sootywing (fq). Atypically, a Marine Blue oviposited on male flowers of it at Weldon, Kern County, 19 April 1989 (Season Summary).

Arctiidae: Salt Marsh Moth (*Estigmene acrea*).

Geometridae: *Glaucina ochrofuscaria*. Meske's Pero (*Pero meskaria*).

Noctuidae: *Anarta antica*.

Atriplex hymenolytra. **Desert Holly**.

Larval host for Western Pygmy Blue.

Atriplex lentiformis. **Quail Bush**. Chenopodiaceae.

Larval host for Western Pygmy Blue and MacNeill's Sootywing.

Atriplex serenana. **Bractscale**. Chenopodiaceae.

Foodplant for Western Pygmy Blue.

Baccharis brachyphylla. **Shortleaf Baccharis**. Asteraceae. Astereae. American Snout, Great Purple Hairstreak visit flowers. Desert Survivors Nursery lists it as a butterfly nectar plant. In addition, tarantula hawk wasps. July - August.

Larvae of Neumogen's Sagebrush Checkerspot reported found on it in the 1992 Season Summary (Dead Mountains, San Bernardino County).

Baccharis salicifolia formerly mistakenly known as *Baccharis glutinosa*. **Mule Fat. Seep Willow**. Asteraceae. Astereae. Nectar: Pipevine Swallowtail, Western Tiger Swallowtail. Harford's Sulphur, Cloudless Sulphur (fq), Orange Sulphur. Monarch (fq), Queen (fq), Tiny Checkerspot, Chalcidon Checkerspot, Gabb's Checkerspot, Leanira Checkerspot, Painted Lady, Common Buckeye (fq), Bordered Patch (fq), California Sister, Gulf Fritillary. American Snout (fq). Fatal Metalmark, Palmer's Metalmark. Brown Elfin, Coastal Green Hairstreak, Great Purple Hairstreak, Gray Hairstreak, Juniper Hairstreak, Leda Ministreak, Acmon Blue (fq), Marine Blue, Reakirt's Blue, Western Pygmy-Blue, Silvery Blue. Northern White-Skipper, Fiery Skipper, Hammock Skipper. One of our best butterfly nectar plants. Counter-intuitively, female plants are more attractive than males. Flowers all year.

A hostplant for interior populations of Fatal Metalmark (Garth & Tilden).

Geometridae: *Chlorochlamys appellaria*, an emerald.

Used in riparian restoration projects.

Baccharis salicina was *Baccharis emoryi*. **Emory's Baccharis**. Asteraceae. Astereae. Painted Lady. May - November.

Noctuidae: *Condica leucorena* larvae have been reared on it.

Baccharis sarothroides. **Indian Broom. Desert Broom**. Asteraceae. Astereae. Nectar: Pipevine Swallowtail, Black Swallowtail, Orange Sulphur, Southern Dogface, Cloudless Sulphur, Mexican Yellow, Sleepy Orange, American Snout, Monarch (fq), Queen (fq), American Lady, Painted Lady, Red Admiral, Common Buckeye, Variegated Fritillary, Gulf Fritillary, Bordered Patch, Palmer's Metalmark, Great Purple Hairstreak (fq), Leda Ministreak, Reakirt's Blue, Western Pygmy-Blue, Fiery Skipper. In *Chasing Monarchs* Robert Michael Pyle, he encountered twenty species of butterflies on one flowering specimen! August - November.

Geometridae: *Letispe metanemaria*.

Baccharis sergiloides. **Desert Baccharis**. Asteraceae. Astereae. Nectar: American Snout. Most likely many of the butterflies listed under "*Baccharis* sp." visit Desert Baccharis for nectar. July - October.

Geometridae: *Letispe metanemaria*.

Bahiopsis parishii was *Viguiera parishii*. **Goldeneye**. Asteraceae. Heliantheae. Nectar: Becker's White, Checkered White, Sleepy Orange, American Lady, Painted Lady, Tiny Checkerspot (fq), Chalcidon Checkerspot, California Patch, Monarch, Queen, Juniper Hairstreak, Marine Blue, Silvery Blue, Funereal Duskywing, Fiery Skipper, Juba Skipper, Orange Skipperling. February - June, September - October.

Larval host for California Patch and sometimes Bordered Patch.

Baileya pauciradiata. **Colorado Desert Marigold. Laxflower.** Asteraceae. Helenieae. December - June, October.

Baileya pleniradiata. **Woolly Desert Marigold.** Asteraceae. Helenieae. Nectar: Two-tailed Swallowtail. Checkered White, Western Pygmy-Blue, Reakirt's Blue, Gray Hairstreak, Painted Lady (fq), Sagebrush Checkerspot, Bordered Patch, White Checkered-Skipper, and Mojave Sootywing. A major Painted Lady nectar source in 1991 migration in Inyo County. March - June, October - November.

Consistently a hostplant for Painted Lady in Inyo County in the 1991 migration year.

Barbarea orthoceras. **American Yellowrocket or American Wintercress.** Brassicaceae. Nectar: Sara Orangetip (fq), Cabbage White, Checkered White, Orange Sulphur, Clouded Sulphur. Painted Lady, American Lady. Brown Elfin, Coastal Green Hairstreak, Gray Hairstreak, Acmon Blue, Silvery Blue. White Checkered-Skipper, Juba Skipper. Many from Scott, who rates it generally "popular". March - July.

American Wintercress: "for about two months in spring, the Wintercress plants are a show-stopper in our garden" (Bruce Newhouse, Eugene, Or, NorWestLeps #3745).

Hostplant for Sara Orangetip, Checkered White, and Cabbage White.

Bebbia juncea var. *aspera*. **Sweetbush. Chuckwalla's Delight.** Asteraceae. Millerieae. Nectar: Pipevine Swallowtail, Black Swallowtail. Checkered White, Orange Sulphur, Cloudless Sulphur, Harford's Sulphur, Dainty Sulphur, Sleepy Orange, Mexican Yellow, and Southern Dogface. Monarch (fq), Queen, Painted Lady, West Coast Lady, Common Buckeye, Bordered Patch, California Patch, Tiny Checkerspot, Sagebrush Checkerspot, Gulf Fritillary. American Snout. Wright's Metalmark (fq), Fatal Metalmark. Gray Hairstreak, Great Purple Hairstreak, Leda Ministreak, Mallow Scrub-Hairstreak, Acmon Blue, Ceraunus Blue, Marine Blue, Reakirt's Blue, Western Pygmy-Blue. Mojave Sootywing, White Checkered-Skipper, Northern White-Skipper, Funereal Duskywing, Eufala Skipper, Fiery Skipper, Orange Skipperling, Arizona Powdered-Skipper, Hammock Skipper. Cabbage Looper. "One of the best butterfly plants in the Sonoran Desert" (*Sonoran Desert Lepidoptera* web page). Usually flowers about April - July.

Sweetbush is a larval host for Wright's Metalmark, which is very closely associated with it.

The Chuckwalla is a large herbivorous desert lizard that likes to eat yellow flowers.

Berberis nevini. **Nevin's Barberry.** Berberidaceae. Monarch. March - May.

Widely cultivated.

Boechera spp. Brassicaceae. Brassicaceae. Nectar plants, especially for species that utilize them as larval hosts.

Foodplant for the Gray Marble (HOSTS). Documented as a larval host genus in Nevada for Spring White and California Marble.

Boechera perennans was *Arabis perennans*. **Nevada Rockcress.** Brassicaceae. Nectar: Spring White and likely others for which it is a host and possibly others. February - May.

Caterpillar food plant for “Desert Edge’ Gray Marble (Monroes) and California Marble (*Iotta*) (Todd Stout). A larval host for Spring White and Southwestern Orangetip [*thoosa segregate* of Sara Orangetip], at least in Utah. Foodplant for Sara Orangetip, says HOSTS (observation SoWestLep #11040).

Nevada Rockcress considered attractive enough to be worth cultivating.

Boerhavia triquetra var. *intermedia*. **Fivewing Spiderling**. Nyctaginaceae. August - October.

Foodplant for Variegated Fritillary.

Boerhavia wrightii. **Wright’s Spiderling**. Nyctaginaceae. Nectar: California Patch, Marine Blue. August – December.

Bothriochloa barbinodis. **Cane Beardgrass**. Poaceae. Andropogoneae.

Noctuidae: Paradoxical Grass Moth (*Heliocheilus paradoxus*).

Brassicaceae. Mustard Family. Adult Pierids are frequent visitors to flowers of their hostplants in the mustard family.

Various Brassicaceae are larval hosts for Becker’s White, Checkered White, Cabbage White, California Marble, Gray Marble, and Sara Orangetip.

Brodiaea terrestris. **Dwarf Brodiaea**. Themidaceae. Nectar: Skippers. April - July.

Bromus carinatus. **California Brome**. Poaceae. Bromeae.

Considered a likely foodplant for the Juba Skipper.

Bursera microphylla. **Elephant Tree**. Burseraceae. May - June.

Foodplant for the Electra Buckmoth (*Hemileuca electra*).

Calliandra eriophylla. **Fairyduster**. Fabaceae. Ingeae. Nectar – *The Butterfly Gardener’s Guide*, others. Swallowtails, large butterflies, Tiny Checkerspot, Fiery Skipper. Attracts, pollinated by, many owl and inchworm moths. Hummingbirds. Flowers February - April and after September or October rains.

Nature’s Archive Blog says Fairyduster is a larval host for the Ceraunus Blue and Marine Blue.

Noctuidae: Merry Melipotis (*Melipotis jucunda* Huebner) in the Organ Pipe National Monument, Arizona.

Camissonia campestris. **Mojave Suncup**. Onagraceae. March - May.

Sphingidae: Kern Primrose Sphinx (*Euproserpinus euterpe*), Carrizo Plain (southeastern San Luis Obispo County) (Paul Johnson).

Camissoniopsis pallida. **Pale Yellow Suncup**. Onagraceae. March – August.

Sphingidae: Phaeton Primrose Sphinx (*Euproserpinus phaeton*). (Monroes).

Carnegiea gigantea. **Saguaro**. Cactaceae. Flowers occasionally attract butterflies. Much more conspicuously the major pollinators: Lesser Long-nosed Bat, doves, and bees. May – June.

Carrion (juices of freshly dead or long decaying vertebrates). An adult food resource, especially for males. Pipevine Swallowtail, Pale Swallowtail, Indra Swallowtail, Western Tiger Swallowtail. American Lady, Viceroy, Chalcedon Checkerspot, Sagebrush Checkerspot, Pearl Crescent [including dead frogs – Michigan], Bordered Patch, Mourning Cloak [as on dead frogs in Michigan]. Acmon Blue. Woodland Skipper. Various moths, especially Tineidae.

David James reports butterflies feeding on freshly dead tadpoles in drying ephemeral ponds in Columbia County, Washington: 20 - 30 male swallowtails: Pale Swallowtail, Indra Swallowtail, Western Tiger Swallowtail, Two-tailed Swallowtail, Anise Swallowtail; and a few Sagebrush Checkerspot (NorWestLeps #4881).

Carrion, including hair and feathers, is food for some moth caterpillars:

Tineidae: Western Clothes Moth (*Tinea occidentella*) – frequent in owl pellets on Santa Barbara Island (Powell & Opler) (known from adjacent counties).

Castilleja foliolosa. **Woolly Paintbrush**. Orobanchaceae. March - June (but also found in flower in the winter months).

Foodplant for Chalcedon Checkerspot and especially Leanira Checkerspot.

Caulanthus cooperi. **Cooper's Caulanthus**. Brassicaceae. March - April.

Foodplant for the Desert Orangetip, Cabbage White (Monroes).

Caulanthus lasiophyllus was *Guillenia lasiophylla* (and, before that, *Thelypodium lasiophyllum*).

California Mustard. Brassicaceae. Likely nectar plant for species that employ it as a hostplant and others. March – June.

Larval host of California Marble [Desert Marble], Sara Orangetip, Desert Orangetip, and Checkered White.

Caulanthus simulans. **Payson's Jewelflower**. Brassicaceae. March - June.

Foodplant for the Spring White, Desert Orangetip, and Sara Orangetip (Monroes). The 1991 Season Summary reports Checkered White larvae on it (JFE) and Gray Marble (1991 Season Summary, Riverside County, JFE).

Ceanothus spp. and vars. **Wild Lilac**. Rhamnaceae. Divided into two subgenera, *Ceanothus* and *Cerastes*.

Especially the white-flowered forms attract butterflies. Nectar: Pipevine Swallowtail, Two-tailed Swallowtail, Giant Swallowtail, California Tortoiseshell, Painted Lady, Common Buckeye, Gabb's Checkerspot, Gray Hairstreak.

Scott notes 53 butterfly species visiting *Ceanothus fendleri* in his Colorado-centric compilation of nectar records.

Growing Native suggests for the butterfly garden: get a long succession of wild lilac blossoms by planting early, mid-season and late flowering local varieties.

Many wild lilacs are hostplants for such butterflies as the Pale Swallowtail, California Tortoiseshell, and Coastal Green Hairstreak. Todd Stout finds any species of this genus a suitable lab host for California Tortoiseshell.

Ceanothus greggii. **Desert Ceanothus**. Rhamnaceae. February – March.

Ceanothus pauciflorus. **Mojave Ceanothus**.

Ceanothus perplexans. **Cupped Leaf Ceanothus**. April – May.

Ceanothus vestitus was *Ceanothus greggii*. **Cupleaf Ceanothus**. **Desert Wild Lilac**. **Mojave Ceanothus**. Rhamnaceae. Nectar: California Marble, Painted Lady, Common Buckeye, Bordered Patch. Its flowers attract many species of Lepidoptera. April - May.

In the Laguna Mountains Kojiro Shiraiwa observed Coastal Green Hairstreak ovipositing on growing tips of this species, a likely host. Caterpillars and eggs he collected from Deerweed (*Acmispon glaber*) accepted and grew on Cupleaf Ceanothus. Listed as a foodplant for Brown Elfin also.

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

Geometridae: Oblique Looper (*Iridopsis obliquaria*) [Seven Backyards web site].

Chaenactis carphoclinia. **Pebble Pincushion**. Asteraceae. Chaenactideae. Nectar: Calflora says it attracts butterflies. March – April. Variety *carphoclinia* widespread; variety *peirsonii* more on the west side.

Chaenactis fremontii. **Desert Pincushion**. Asteraceae. Chaenactideae. Nectar: Spring White, Checkered White, Cabbage White, Sara Orangetip, Dainty Sulphur. Painted Lady, West Coast Lady, Sagebrush Checkerspot, Tiny Checkerspot (fq), California Patch, Leanira Checkerspot. Marine Blue, Ceraunus Blue, Western Pygmy-Blue. White Checkered-Skipper. In the Anza Borrego area, the Monroes note eight species on it and the Austins noted several species in Clark County Nevada. February - May.

Noctuidae: *Schinia graefiana*.

Chaenactis stevioides. **Estevé Pincushion**. Asteraceae. Chaenactideae. Painted Lady. Desert Botanical Garden recommends for butterflies. Its white flowers likely visited by moths at night. February - June.

Noctuidae: Variegated Cutworm (*Peridroma saucia*). Cabbage Looper (*Trichoplusia ni*).

Chaenactis xantiana. **Mojave Pincushion**. Asteraceae. Chaenactideae. CalFlora reports butterflies associated with it. March - July.

Noctuidae: *Schinia graefiana*.

Chenopodium sp. **Goosefoot**. Amaranthaceae.

Tortricidae: Omnivorous Leafroller (*Platynota stultana*).

Chenopodium berlandieri. **Pitseed Goosefoot**. Amaranthaceae. Pitseed Goosefoot is a nectar plant for the Western Pygmy Blue. July - September.

Oviposition observed by Western Pygmy Blue. Hostplant for Common Sootywing and Golden-headed Scallopwing.

Chenopodium californicum. **California Goosefoot**. Amaranthaceae. March - September.

Larval host for Western Pygmy Blue and Common Sootywing.

Chilopsis linearis. **Desert Willow**. Bignoniaceae. Nectar: Pipevine Swallowtail; eight seen at nectar late in the day by Mary Klinkel, at the Empire Ranch Cienega in Arizona. In New Mexico, David Ferguson sees Two-tailed Swallowtail often, Monarch and Queen less frequently, Cloudless Sulphur occasionally. White-lined Sphinx (*Hyles lineata*) and other long-tongued moths. May - September.

Arctiidae: Salt Marsh Moth (*Estigmene acrea*).

Sphingidae: a favorite larval host of the Rustic Sphinx (*Manduca rustica*) (Powell & Opler).

Chloracantha spinosa var. *spinosa*. **Spiny Aster**. Asteraceae. Astereae. Nectar: Dainty Sulphur, Cabbage Looper (*Trichoplusia ni*, Noctuidae). May – December.

Chorizanthe rigida. **Spiny Herb**. Polygonaceae. February - June.

Sphingidae: White-lined Sphinx (*Hyles lineata*).

Chylismia brevipes formerly aka *Oenothera brevipes*. **Yellow Cups**. Onagraceae. March – April.

Presumably, the White-lined Sphinx host eating flowers, leaves and tender distal portions of stems in early May, noted as “*Oenothera breviceps*” in: Casey, Timothy M. "Activity Patterns, Body Temperature and Thermal Ecology in Two Desert Caterpillars (Lepidoptera: Sphingidae)." *Ecology* 57, no. 3 (1976): 485-97. doi:10.2307/1936433.

Chylismia claviformis was *Camissonia claviformis*. **Browneyes**. Onagraceae. Feb-May (most subspecies).

Sphingidae: A Hartmut Wisch photograph shows White-lined Sphinx (*Hyles lineata*) caterpillars eating its buds and seedpod; a Wayne’s Word photograph shows caterpillar feeding on subsp. *peirsonii*. Monroes: it is a favorite host.

Noctuidae: *Schinia deserticola*.

Claytonia parviflora. **Narrow-leaved Miner’s Lettuce**. Montiaceae. Nectar plant for various Lepidoptera elsewhere. May - July.

Clematis spp. **Virgin’s Bower**. Ranunculaceae. Nectar: usually good butterfly flowers.

Clematis suspected as a hostplant for Fatal Metalmark.

Clematis pauciflora. **Virgin’s Bower**. Ranunculaceae. Calflora notes “butterflies” associated with this species. January – June.

Cleomella obtusifolia. **Bluntleaf Stinkweed**. Mojave *Cleomella*. Cleomaceae. April – October.

Checkered White ova (1988 Season Summary, San Bernardino County, John F. Emmel).

Coleogyne ramosissima. **Blackbush**. Rosaceae. Kerrieae. April - June.

Noctuidae: *Spaelotis unicava*.

Condalia globosa var. *pubescens*. **Spiny Crucillo**. Rhamnaceae. March - April.

Noctuidae: Possibly a larval host for the Orbed Narrow-wing (*Magusa divaricata*).

Condea emoryi was *Hyptis emoryi*. **Desert Lavender**. Lamiaceae. Nectar: Black Swallowtail. Becker's White, Checkered White, Spring White, Sara Orangetip, Sleepy Orange, Dainty Sulphur. Queen, California Patch (fq), Chacedon Checkerspot, Tiny Checkerspot, Painted Lady. Gray Hairstreak, Great Purple Hairstreak, 'Loki' Juniper Hairstreak (fq), Coastal Green Hairstreak, Leda Ministreak, Mallow Scrub-Hairstreak, Brown Elfin, Silvery Blue, Acmon Blue, Ceraunus Blue, Funereal Duskywing, Arizona Powdered Skipper and a *Schinia* (Noctuidae, flower moth). In Anza-Borrego, the Monroes found 18 butterfly species at its flowers! Popular with hummingbirds, also. January – May.

Among foodplants for the polyphagus Gray Hairstreak.

Cressa truxillensis. **Alkali Weed**. Convolvulaceae. Elsewhere, among secondary nectar plants for Carson Wandering Skipper. May – October.

Croton californicus. **California Croton**. Euphorbiaceae. Nectar: Some value. April - July.

Noctuidae: *Schinia citrinellus*.

Croton setiger was *Eremocarpus setigerus*. **Dove Weed**. Euphorbiaceae. Nectar: American Lady, Common Buckeye, Gray Hairstreak, Acmon Blue, Western Pygmy-Blue, White Checkered-Skipper, Mojave Sootywing, others. Shapiro: an "excellent" nectar source for butterflies. May – October.

Larval host for the Gray Hairstreak.

Cryptantha spp. **Cryptantha**. Boraginaceae. Nectar: Desert Orangetip, Checkered White, Spring White, California Marble aka Pearly Marble. Sagebrush Checkerspot, Gabb's Checkerspot. Ceraunus Blue, Acmon Blue. White Checkered-Skipper.

Species in the genus *Cryptantha* can be difficult to distinguish.

Larval hosts for Painted Lady.

Cryptantha angustifolia. **Narrow Leaved Cryptantha**. Boraginaceae.

Hostplant for Painted Lady, noted in 1992.

Cryptantha barbiger. **Bearded Cryptantha**. Boraginaceae. February – June.

Hostplant for Painted Lady in 1991 migration, Inyo County.

Cryptantha circumscissa. **Cushion Cryptantha**. Boraginaceae. March – August.

Hostplant for Painted Lady noted in 1992.

Cryptantha intermedia. **Common Cryptantha**. Boraginaceae. Nectar: Becker's White, Lompoc Blue [a segregate of Small Dotted-Blue], Silvery Blue, Acmon Blue, Gray Hairstreak, White Checkered-Skipper (slight usage). May - July.

Cryptantha muricata. **Prickly Cryptantha**. Boraginaceae. "A source of nectar for a variety of adult butterflies" – Plants of the San Gabriel Mountains. March - July.

Cryptantha pterocarya. **Winged-nut Cryptantha**. Boraginaceae. March – July.

A Painted Lady hostplant in the 1991 migration event, Inyo County.

Cryptantha recurvata. **Curved-nut Cryptantha**. Boraginaceae. March – June.

Hostplant for Painted Lady, Inyo County, 1991 migration year.

Cryptantha utahensis. **Scented Cryptantha**. Boraginaceae. March – July.

Hostplant for Painted Lady in Inyo County in the 1991 migration year.

Cucurbita digitata. **Fingerleaf Gourd**. Cucurbitaceae. August – October.

Sesiidae: Manroot Borer (*Melittia gloriosa*).

Cucurbita palmata. **Coyote Melon**. Cucurbitaceae. April – September.

Sesiidae: Manroot Borer (*Melittia gloriosa*).

Cuscuta spp. **Dodder**. Convolvulaceae. The flowers attract male Queens; dodder nectar's pyrrolizidine alkaloids enable them to make sex pheromones!

Larval host for Brown Elfin.

Cuscuta californica. **Chaparral Dodder**. Convolvulaceae. Nectar: Gray Hairstreak. March – September.

Paul Johnson finds Chaparral Dodder a Brown Elfin hostplant in Pinnacles National Monument; Alice Abela photographed a Brown Elfin caterpillar eating it as parasitic on California Buckwheat (*Eriogonum fasciculatum*).

A parasitic plant, hosts include Poison Oak (*Toxicodendron diversilobum*) and Toyon (*Heteromeles arbutifolia*) (Corelli, "Plants that Like Hosts" web page). Also found on many other plants.

Cuscuta salina. **Saltmarsh Dodder**. Convolvulaceae. Elsewhere, Wandering Skipper at Ballona Wetlands Ecological Reserve. May – October.

Cylindropuntia sp. **Cholla**. Cactaceae.

Pyralidae: Cahela Moth (*Cahela ponderosella*).

Cyperus spp. **Flatsedge** or **Nutsedge**. Cyperaceae.

Pyralidae: Lesser Cornstalk Borer (*Elasmopalpus lignosellus*).

Datura discolor. **Desert Thorn Apple**. Solanaceae. Nectar: Five-spotted Hawkmoth, Carolina Sphinx. April - October.

Datura wrightii. **Sacred Datura**. Solanaceae. Several hawkmoths visit Sacred Datura for nectar. A favorite of the Carolina Sphinx, *Manduca sexta*. Others: Five-spotted Hawkmoth (*Manduca quinquemaculata*). Rustic Sphinx (*Manduca rustica*). White-lined Sphinx (*Hyles lineata*). Amusing and edifying observations about hawkmoth visits to Sacred Datura related in an online article, "The Jimsonweed Junkie Moth" by Wayne P. Armstrong (as of this writing, in Feb 2011) at: <http://waynesword.palomar.edu/ww0703.htm#Junkie>

Flowers April - October.

Sphingidae: Carolina Sphinx (*Manduca sexta*).

Deinandra spp. **Tarplants**. Asteraceae. Madieae. All are likely nectar plants, many with long flowering periods.

Deinandra kelloggii. **Kellogg's Tarweed**. Asteraceae. Madieae. April – August.

Delphinium parishii. **Desert Larkspur**. Ranunculaceae. Nectar: Black Swallowtail. March - May.

Descurainia pinnata. **Western Tansy Mustard**. Brassicaceae. Nectar: Checkered White, Desert Orangetip, Painted Lady, Western Pygmy-Blue, White Checkered-Skipper. "Flowers visited heavily by Juniper Hairstreak and spring Pierids in eastern California" (Shapiro). Scott considers it unpopular in Colorado. February - June.

Western Tansy Mustard is a hostplant for Becker's White (Todd Stout), Checkered White, Spring White and for Sara Orangetip (including Southwestern Orangetip, *thoosa*), Desert Orangetip (including the Pima Orange-tip), and California Marble (including *lotta*, the Desert Marble).

Dichelostemma capitatum. **Blue Dicks**. Themidaceae. Nectar: Pipevine Swallowtail (fq), Pale Swallowtail (fq), Western Tiger Swallowtail, Two-tailed Swallowtail, Black Swallowtail. Sara Orangetip (fq), Southern Dogface, Gray Marble, California Marble, Cabbage White. Monarch (fq), American Lady, Painted Lady, West Coast Lady, Chalcedon Checkerspot, Silvery Blue, Acmon Blue. Northern White-Skipper, Funereal Duskywing, Fiery Skipper, spring Skippers. White-lined Sphinx. Great butterfly nectar plant! March - June.

Dicoria canescens. **Desert Dicoria**. Asteraceae. Heliantheae. Ambrosiinae. September - January.

Foodplant for Painted Lady.

Noctuidae: *Schinia tobias*.

Dieteria asteroides was *Machaeranthera asteroides*. **Hoary Aster**. Asteraceae. Astereae. "Great butterfly nectar source" according to Desert Survivors Nursery. Noted as attracting most of 50 species of butterflies seen on a fall fieldtrip of the Southeast Arizona Butterfly Association. March – June, September – October.

Hoary Aster is a foodplant for the Sagebrush Checkerspot (*Chlosyne acastus sabina*) in Arizona.

Dieteria canescens was *Machaeranthera canescens*. **Hoary Aster**. Asteraceae. Astereae. Juba Skipper, others. June – October.

Larval host for Sagebrush Checkerspot.

Tortricidae: *Pelochrista bolanderana*.

Diplacus aurantiacus was *Mimulus aurantiacus*.. *M. longiflorus*. **Bush Monkeyflower**. Phrymaceae.
Nectar: Sara Orangetip, Chalcedon Checkerspot, Rural Skipper
(<https://www.inaturalist.org/observations/13193236>), White-lined Sphinx. Hummingbirds. March – June.

Hostplant for Chalcedon Checkerspot and Common Buckeye. Considered secondary for Common Buckeye in the San Bruno Mountains. A favorite Chalcedon Checkerspot foodplant in the San Francisco Bay region.

Distichlis spicata. **Saltgrass**. Poaceae. Chlorideae.

Foodplant for Sandhill Skipper, Orange Skipperling, and Sachem. Shapiro notes Saltgrass is a hostplant for Fiery Skipper in South America and likely so serves here, too.

Draba cuneifolia. **Wedgeleaf Draba**. Brassicaceae. January - May.

Dudleya pulverulenta. **Chalk Dudleya**. Crassulaceae. Hummingbirds. May – July.

Dudleya saxosa. **Desert Dudleya**. Crassulaceae. May - June.

Foodplant for Gray Hairstreak.

Eclipta prostrata. **False Daisy**. Asteraceae. Heliantheae. Nectar plant. All year.

Encelia actoni. **Mountain Bush Sunflower**. Asteraceae. Heliantheae. Western Tiger Swallowtail. An especially favored nectar source for Painted Lady in Inyo County in 1991 migration year. Recommended for butterfly gardens in the Mojave Desert by the Four Directions Institute of Native American Studies. February - July.

Encelia farinosa. **Brittlebush**. Asteraceae. Heliantheae. Nectar: Black Swallowtail, Cloudless Sulphur, Painted Lady (fq), American Lady, West Coast Lady, Chalcedon Checkerspot, Tiny Checkerspot (fq), Sagebrush Checkerspot, California Patch, Gray Hairstreak, Juniper Hairstreak, Ceraunus Blue, Silvery Blue, Western Pygmy-Blue, Arizona Powdered-Skipper. Serves most or all species flying early in the year. January - June, August – September.

Brittlebrush serves as a Painted Lady hostplant.

Bucculatricidae: Brittlebrush Moth (*Bucculatrix enceliae*) – a leaf miner known to eat only this species.

Encelia frutescens. **Button Brittlebush**. Asteraceae. Heliantheae. Nectar: Painted Lady. “Flowers are not showy, but butterflies seem to like them ... great smell” – Las Pilitas Nursery. February-May.

Encelia virginensis. **Virgin River Brittlebrush**. Asteraceae. Heliantheae. Nectar: Black Swallowtail, Checkered White, Painted Lady. March - June, December.

Ephedra sp. **Jointfir**. Ephedraceae. In 1970 Oakley Shields observed the Pale Blue (*Philotes rita* = *Euphilotes pallescens*) sheltering on the stiff stems of Ephedra plants in a wind and sand storm in Utah. He estimated the winds at about 30-40 miles per hour. Most hung on to the uppermost parts of the plant, head down, away from the wind's angle and were somewhat buffeted about. Nineteen were collected from the plant during the wind.

Epilobium canum was *Zauschneria californica*. **California Fuchsia. Zauschneria**. Onagraceae. Nectar: Pipevine Swallowtail (most avid user known to Shapiro), Cloudless Sulphur, Sleepy Orange, Mexican Yellow. Outstanding for hummingbirds. June - December.

Sphingidae: White-lined Sphinx (*Hyles lineata*) (fq).

Epilobium canum spp. *latifolium*. **California Fuchsia**. Cloudless Sulphur, Southern Dogface. June - December.

Eremalche exilis. **White Mallow**. Malvaceae. March – May.

Larval host for West Coast Lady, Northern White-Skipper.

Eremalche rotundifolia. **Desert Five-spot**. Malvaceae. March – May.

Larval host for Northern White-Skipper and White Checkered-Skipper.

Eremocarpus setigerus is now *Croton setiger*. **Dove Weed**.

Eremothera boothii was *Camissonia boothii*. **Booth's Evening Primrose**. Onagraceae. Elsewhere, Alfalfa Semilooper (*Autographa californica*, Noctuidae) visits flowers.

Eriastrum diffusum. **Blue Mantle**. Polemoniaceae. Likely nectar plant. March – June.

Ericameria brachylepis. **Boundary Goldenbush**. Asteraceae. Astereae. Nectar: No specific records, such species as California Patch and Painted Lady seem quite likely. Las Pilitas Nursery nectar plant. September – December.

Ericameria cuneata. **Wedgeleaf Goldenbush**. Asteraceae. Astereae. Las Pilitas Nursery recommends for butterfly garden. Monroes: Juba Skipper. September – November.

Ericameria linearifolia. **Narrowleaf Goldenbush. Interior Goldenbush**. Asteraceae. Astereae. Nectar: Leanira Checkerspot (fq), Chalcedon Checkerspot, John Muir's Hairstreak [a segregate of Juniper Hairstreak], Common Sootywing, Juba Skipper. Hints: "very good butterfly haunt" on Mt. Diablo. March – May.

John Lane, in a personal communication, notes: "I have been interested in the "juniper hairstreaks" for many years and can offer a few nectar records.

"O. E. Sette studied southern California "*Mitoura*" in the 1950s-60s and his notebooks at the Natural History Museum of Los Angeles County are gold mines. He noted that the flights of "*M. siva mansfield*" and what we now would call "*M. gryneus muiri* associated with California Juniper in the Central Inner Coast Ranges, were always in association with *Ericameria* (= *Haplopappus*) *linearifolius*. He took the bloom period of this species as the best indicator of the flight time of the butterflies."

Geometridae: *Digrammia pictipennata*.

Zone 7. Tends to be difficult in cultivation. According to nurseryman Pete Veilleux of East Bay Wilds, it does not do well kept long in containers and is quite averse to summer irrigation. Successful cultivation depends on planting out young specimens in the fall and allowing them to be dry in the summer. However, one specimen in a San Jose garden (Linda Ruthruff) thrived on the edge of a lawn on the north side of a house!

Ericameria paniculata was *Chrysothamnus paniculatus*. **Black-stem** or **Mojave Rabbitbush**. Asteraceae. Astereae. June - December.

Erigeron spp. **Fleabanes**. Asteraceae. Astereae. Nectar: Checkered White, Sleepy Orange. Gulf Fritillary, Chalcidon Checkerspot, Ceraunus Blue, White Checkered-Skipper. Shapiro finds *Erigeron* spp. generally secondary in butterfly nectar value to *Aster* spp., and utilized mostly in the fall, with *Erigeron glaucus* near the coast the best nectar plant in the genus.

Sphingidae: White-lined Sphinx (*Hyles lineata*).

Pyrilidae: Bold-feathered Grass Moth (*Herpetogramma pertextalis*).

Erigeron canadensis was *Conyza canadensis*. **Horseweed**. Asteraceae. Astereae. Nectar: Monarch, Cabbage White, Gray Hairstreak. Value likely slight. All year.

Erigeron divergens. **Spreading Fleabane**. Asteraceae. Astereae. Pipevine Swallowtail, Common Buckeye, White Checkered-Skipper, others. April – August.

Eriodictyon crassifolium. **Thick-leaved Yerba Santa**. Boraginaceae Nectar: Pale Swallowtail, Western Tiger Swallowtail, Pipevine Swallowtail, Checkered White, Sara Orangetip, Common Buckeye, American Lady, Painted Lady (fq), West Coast Lady, California Sister, Chalcidon Checkerspot, Coastal Green Hairstreak, Funereal Duskywing (fq), Northern White-Skipper (fq), Rural Skipper, and likely others. Nicknamed "butterfly crack" by some lepidopterists because they are so wrapped up in enjoying it! April - June.

Las Pilitas Nursery: "quite the butterfly magnet and easier to grow".

Eriodictyon trichocalyx. **Smooth Leaf Yerba Santa**. Boraginaceae. Nectar: Western Tiger Swallowtail, Pale Swallowtail, Orange Sulphur, Queen, Chalcedon Checkerspot, California Sister, American Lady, Painted Lady, West Coast Lady, Acmon Blue, Marine Blue, Funereal Duskywing, Northern White-Skipper. Excellent nectar source. April - July.

Eriogonum spp. **Wild Buckwheats**. Polygonaceae. Nectar: Painted Lady, American Lady, Common Buckeye, Gray Hairstreak, Great Purple Hairstreak, Marine Blue, Northern White-Skipper.

Almost any significant native population of any *Eriogonum* species is likely to have at least one blue Lycaenid butterfly, if not several, utilizing it as a larval host. Other species utilizing Eriogonum: Brown Elfin, Gray Hairstreak and Coastal Green Hairstreak.

Saturniidae: Electra Buckmoth (*Hemileuca electra*).

Eriogonum davidsonii. **Davidson Buckwheat**. Polygonaceae. May - September.

Larval host for Pratt's Dotted Blue in the San Jacinto and Santa Rosa Mountains in Riverside County (Monroes). Also serves caterpillars of Gray Hairstreak, Acmon Blue and Ceraunus Blue.

Eriogonum deflexum. **Flat-topped Skeleton Weed**. Polygonaceae. Nectar source for Ceraunus Blue, Western Pygmy Blue (Miller).
var. *deflexum* flowers all year.

Eriogonum deserticola. **Dune Buckwheat. Colorado Desert Buckwheat**. Polygonaceae. Nectar: Sleepy Orange, Tiny Checkerspot. July - January.

Eriogonum fasciculatum. **California Buckwheat**. Polygonaceae. Nectar: Swallowtails, Becker's White, Checkered White, Dainty Sulphur, Harford's Sulphur. Queen, Chalcedon Checkerspot, Common Buckeye (fq), Painted Lady, American Lady, West Coast Lady, Red Admiral, California Sister, Sagebrush Checkerspot, California Patch, Fatal Metalmark. Brown Elfin, Coastal Green Hairstreak, Gray Hairstreak, Great Purple Hairstreak, Juniper Hairstreak, Leda Ministreak. Acmon Blue, Bernardino Dotted-Blue, Pacific Dotted Blue, Marine Blue, Ceraunus Blue, Reakirt's Blue, Western Pygmy-Blue. White Checkered-Skipper, Northern White-Skipper, Funereal Duskywing, Common Sootywing, Fiery Skipper, Sandhill Skipper. One of the top butterfly nectar plants in southern California! Also gets moths and loads of other insects, too. Flowers all year.

Larval host for Coastal Green Hairstreak, Bernardino Dotted-Blue, and Acmon Blue.

Geometridae: *Chlorochlamys appellaria* – an emerald.

Noctuidae: *Triocnemis saporis*.

Saturniidae: Electra Buckmoth (*Hemileuca electra*) – a day-flying silk moth with bright red-orange hindwings bordered in black.

Eriogonum fasciculatum var. *polifolium*. **Interior California Buckwheat**. Polygonaceae. Nectar: West Coast Lady, Common Buckeye, Silver-banded Hairstreak, Bernardino Dotted-Blue. Values much the same as above. Bernardino Dotted-Blue closely associated with this taxon. Flowers any time.

This is the applicable variety in much of the range of the species. Emmel & Emmel (1973): Coastal Green Hairstreak, Bernardino Dotted-Blue. Very likely also for Acmon Blue.

Saturniidae: Electra Buckmoth (*Hemileuca electra* subsp. *mojavensis* and *clio*).

Geometridae: Larvae of the emerald *Chlorochlamys appellaria* (McFarland, 1975) develop on its flower heads.

Eriogonum inflatum. **Desert Trumpet**. Polygonaceae. Nectar: Painted Lady, likely others, especially those that use it for a hostplant. All year.

Caterpillar plant for Gray Hairstreak, and Ceraunus Blue.

Noctuidae: *Triocnemis saporis*.

Eriogonum pusillum. **Yellow Turbans**. Polygonaceae. Nectar: Pacific Dotted Blue, and surely, at the least for others for which it is a hostplant. February - August.

Foodplant for Pacific Dotted Blue and Small Dotted-Blue.

Noctuidae: *Triocnemis saporis*.

Eriogonum reniforme. **Kidney-leaf Buckwheat**. Polygonaceae. February - August.

Larval host for Ceraunus Blue, Acmon Blue, and Small Dotted-Blue (Monroes). Also, Pacific Dotted Blue.

Eriogonum wrightii. **Wright's Buckwheat**. Polygonaceae. Nectar: Orange Sulphur, Palmer's Metalmark, Gray Hairstreak, Echo Azure, Western Pygmy-Blue, Ceraunus Blue, Pacific Dotted Blue, Common Sootywing, White Checkered-Skipper. "Very good" – Shapiro. July - October.

Larval host for Coastal Green Hairstreak, Gray Hairstreak, Acmon Blue, Pacific Dotted-Blue.

Eriophyllum confertiflorum. **Golden Yarrow**. Asteraceae. Madieae. Nectar: Cabbage White, Checkered White, Orange Sulphur (fq). American Lady, West Coast Lady, Painted Lady, Chalcedon Checkerspot, Gabb's Checkerspot, Common Buckeye. Brown Elfin, Juniper Hairstreak, Acmon Blue (fq), Marine Blue. Funereal Duskywing, Fiery Skipper, Woodland Skipper, moths.

Golden Yarrow proved a popular nectar source when it became a landscape dominant after a southern California burn (David S. Horner, DesertLeps #8723). April - August.

Eriophyllum wallacei or *Antheropeas wallacei* according to many. **Wallace's Woolly Daisy**. Asteraceae. Madieae. Nectar: Orange Sulphur, Acmon Blue, Sagebrush Checkerspot, California Patch, Leanira Checkerspot. December - July.

Erythranthe guttata was *Mimulus guttatus*. **Yellow Monkeyflower**. Phrymaceae. Nectar: Painted Lady, White-lined Sphinx. March – August.

Hostplant for the Common Buckeye and Chalcedon Checkerspot.

Arctiidae: Salt Marsh Moth (*Estigmene acrea*).

Noctuidae: Beet Armyworm (*Spodoptera exigua*) (lab). Yellowstriped Armyworm (*Spodoptera ornithogalli*) (in Michigan, where naturalized). Cabbage Looper (*Trichoplusia ni*) (fq).

Eucrypta micrantha. **Dainty Desert Hideseed**. Hydrophyllaceae. Nectar: Acmon Blue. March - June.

Eulobus californicus was *Camissonia californica*. **California Suncup**. Onagraceae. April - June.

Sphingidae: White-lined Sphinx (*Hyles lineata*, Sphingidae) (Marc Kummel photograph). Confirmed by observations of Bob Allen.

Euphorbia albomarginata was *Chamaesyce albomarginata*. **Rattlesnake Weed**. Euphorbiaceae. Nectar: Dainty Sulphur. April – November.

Euphorbia melanadenia was *Chamaesyce melanadenia*. **Squaw Spurge**. Euphorbiaceae. Nectar: A photograph shows this or a similar spurge with a Dainty Sulphur at nectar. Elsewhere, Sonoran Blue in the Anza-Borrego Desert (Heath). December - May.

Euphorbia polycarpa was *Chamaesyce polycarpa*. **Desert Sandmat**. Euphorbiaceae. Nectar: Coastal Green Hairstreak (Monroes). All year.

Ferocactus cylindraceus. **California Barrel Cactus**. Cactaceae. April – May.

Pyralidae: *Pseudoschinia elautalis* [McIntosh, M.E., 2002. Plant size, breeding system, and limits to reproductive success in two sister species of *Ferocactus* (Cactaceae). *Plant Ecology* 162, pp. 273–288. [\(PDF\)](#).] Powell & Opler (p. 171) note it is a diurnal flower visitor to Asteraceae.

Fouquieria splendens. **Ocotillo**. Fouquieriaceae. Nectar: Pipevine Swallowtail, White-lined Sphinx. ‘Many’ butterflies. Long-tongued moths, hummingbirds. March - July.

Saturniidae: Electra Buckmoth (*Hemileuca electra*). Ocotillo is a foodplant for the Calleta Silkmoth (*Eupackardia calleta*) in Baja California and Arizona, a moth species not reported from California.

Geometridae: *Eubarnesia ritaria*.

Fraxinus velutina. **Arizona Ash**. Oleaceae. Nectar: American Snout, Mourning Cloak (SoWestLep #11032, Klinkel). March – April.

Arizona Ash seems to be a hostplant for Western Tiger Swallowtail (seen ovipositing on ‘Modesto’, personal communication, Arthur Shapiro). It supports Bigleaf Mistletoe (*Phoradendron leucarpum* ssp. *macrophyllum*), which supports the Great Purple Hairstreak.

Fremontodendron californicum. **California Flannel Bush**. Malvaceae. Northern White-Skipper was observed at nectar upon its flowers in the Tehachapi Mountains (Orsak) – possibly noted as unusual. Not usually considered a butterfly plant! On June 10, 2001, Jane Strong reported, “There was also a new hatch of Painted Ladies at the Vincent Gap area [of Angeles National Forest]. They were in perfect condition, large and brightly colored. The Fremontia was in glorious full bloom and each plant had forty or fifty Painted Ladies on it settling down for the night or nectaring. They rose up in a fluttering cloud each time a shadow passed over the bushes.” (SoWestLep #1397). April – July.

Until recently, *Fremontodendron* considered Sterculiaceae but now reassigned to the Malvaceae. Malvaceae are often larval hosts for Northern White-Skipper and sometimes for the Painted Lady – perhaps at times the California Flannel Bush so serves.

Funastrum cynanchoides var. *hartwegii* was *Sarcostemma cynanchoides* ssp. *hartwegii*. **Climbing Milkweed**. Apocynaceae. Nectar: Sleepy Orange, Queen (fq), Ladies, Gray Hairstreak, Juniper Hairstreak, Leda Ministreak, Acmon Blue, Marine Blue, Western Pygmy-Blue, Mojave Sootywing, Fiery Skipper, Eufala Skipper. Its flowers attract many butterfly species, according to Desert Butterfly Gardening and others. April - July.

Larval host for the Queen and the Monarch.

Arctiidae: *Euchaetes zella* (BugGuide).

Sphingidae: Obscure Sphinx (*Erinnyis obscura*).

Funastrum hirtellum was *Sarcostemma hirtellum*. **Smooth Milkvine. Trailing Townula**. Apocynaceae. Nectar: Orange Sulphur, Sleepy Orange, Monarch, Queen, Painted Lady, California Patch, Marine Blue, Reakirt's Blue, Great Purple Hairstreak, Gray Hairstreak, Northern White-Skipper, White Checkered-Skipper. March - May.

Smooth Milkvine thought the primary larval host for the Queen in southern California.

Arctiidae: Clio Tiger Moth (*Ectypia clio*).

Funastrum utahense was *Cynanchum utahense*. **Utah Swallow Wort**. Apocynaceae. Likely nectar plant. April - September.

Larry (email prefix “ladobe”) on the Butterfly Garden Forum found eggs and larvae of the Queen on 11 May 1997 on this species while “checking a tagged large male desert tortoise that I was recording the life history of for the DOA”. Reported in 1997 Season Summary. Utah Swallow Wort also is likely a foodplant for the Variegated Fritillary.

Sphingidae: Likely foodplant for the Obscure Sphinx (*Erinnyis obscura*).

Galium angustifolium. **Narrow-leaved Bedstraw**. Rubiaceae.

Sphingidae: Marc Kummel photographed a White-lined Sphinx (*Hyles lineata*) caterpillar feeding on it.

Geraea canescens. **Desert Sunflower**. Asteraceae. Heliantheae. Nectar: Painted Lady. January - May, September - November.

Noctuidae: Alfalfa Semilooper (*Autographa californica*). Tobacco Budworm (*Chloridea virescens*). Corn Earworm (*Helicoverpa zea*). Beet Armyworm (*Spodoptera exigua*). Cabbage Looper (*Trichoplusia ni*). (Pearson, et. alia, 1988).

Gilia spp. **Gilia**. Polemoniaceae. Nectar: Usually nectar sources for Lepidoptera.

Gnaphalium palustre. **Lowland Cudweed**. Asteraceae. Gnaphalieae.

Larval host for American Lady.

Noctuidae: Everlasting Bud Moth (*Eublemma minima*) likely feeds on this species.

Grindelia spp. **Gumweeds**. Asteraceae. Astereae. Nectar: Monarch, Cabbage White, Checkered White, Cloudless Sulphur, Orange Sulphur, Common Buckeye, Red Admiral, Painted Lady, West Coast Lady, Acmon Blue, White Checkered-Skipper, Woodland Skipper, Skippers, A good butterfly nectar plant.

Pterophoridae: *Dejongia californicus* (Powell & Opler, p. 119).

Grindelia camporum. **Valley Gumplant**. Asteraceae. Astereae. Nectar: Pipevine Swallowtail, Orange Sulphur (fq), Chalcedon Checkerspot, West Coast Lady, Common Buckeye (fq), Acmon Blue, skippers. May – November.

Pyralidae: American Sunflower Moth (*Homoeosoma electella*).

Tortricidae: Omnivorous Leafroller (*Platynota stultana*).

Gutierrezia spp. **Snakeweeds**. Asteraceae. Astereae.

Noctuidae: *Hemieuxoa rudens* eats *Gutierrezia wrightii* in Arizona (Powell & Opler, p. 308).

Gutierrezia californica. **San Joaquin Snakeweed**. Asteraceae. Astereae. Nectar: Western Pygmy-Blue, likely others. July – November.

Gutierrezia sarothrae. **Broom Snakeweed**. Asteraceae. Astereae. Nectar: Becker's White, Dainty Sulphur, Orange Sulphur, Clouded Sulphur, Red Admiral, Painted Lady, Variegated Fritillary, Gray Hairstreak, White Checkered-Skipper, and Juba Skipper. Generally, rather secondary. May-October.

Pyralidae: American Sunflower Moth (*Homoeosoma electella*).

Helianthus annuus. **Sunflower**. Asteraceae. Heliantheae. Nectar: Pipevine Swallowtail, Cabbage White, Checkered White, Orange Sulphur, Clouded Sulphur, Sleepy Orange, Monarch (fq), Queen, Painted Lady, West Coast Lady, American Lady, Red Admiral, Common Buckeye, California Patch, Bordered Patch (secondary source), Gabb's Checkerspot, Pearl Crescent, Leda Ministreak, Gray Hairstreak, Great Purple Hairstreak, Western Pygmy-Blue, Funereal Duskywing, White Checkered-Skipper, Woodland Skipper, Sachem, Orange Skipperling, Rural Skipper, Eufala Skipper. "Excellent source of nectar for many adult butterflies" – *Plants of the San Gabriel Mountains*. Also, White-lined Sphinx. Even so, sunflower may be a secondary nectar source in many areas. June – October.

A Bordered Patch hostplant in the extreme SE corner of California, especially in agricultural areas where commercially grown (Heath); also, in Clark County, Nevada. The preferred host for Bordered Patch (Gorodenski). Sunflower is among hostplants for Painted Lady and occasionally California Patch (Scott).

Geometridae: Southern Emerald (*Synchlora frondaria*).

Noctuidae: Tobacco Budworm (*Chloridea virescens*). Corn Earworm (*Helicoverpa zea*). Variegated Cutworm (*Peridroma saucia*). Armyworm (*Mythimna unipuncta*). Gray Looper Moth (*Rachiplusia ou*). Beet Armyworm (*Spodoptera exigua*). Fall Armyworm (*Spodoptera frugiperda*). Yellowstriped Armyworm (*Spodoptera ornithogalli*). Cabbage Looper (*Trichoplusia ni*).

Sphingidae: Rustic Sphinx (*Manduca rustica*).

Tortricidae: Sunflower Bud Moth (*Suleima helianthana*). *Suleima lagopana*.

Helianthus niveus. **Desert Sunflower**. Asteraceae. Heliantheae. An attractive species surely of value to Lepidoptera. March – May, October – January.

Tortricidae: Supports a *Suleima* species.

Heliotropium curassavicum. **Salt Heliotrope**. Boraginaceae. Nectar: Black Swallowtail. Checkered White, Cabbage White, Orange Sulphur, Dainty Sulphur. Queen (fq), Monarch, Painted Lady, West Coast Lady, American Lady, Common Buckeye, Gulf Fritillary, Variegated Fritillary, Bordered Patch, California Patch, Chalcidon Checkerspot, Palmer's Metalmark. Gray Hairstreak, Leda Ministreak, Ceraunus Blue, Marine Blue, Western Pygmy-Blue (fq), Acmon Blue, Bernardino Dotted-Blue, Silvery Blue. Common Sootywing, MacNeill's Sootywing (fq), Mojave Sootywing, Funereal Duskywing, White Checkered-Skipper, Small Checkered-Skipper, Northern White-Skipper, Eufala Skipper (fq), Fiery Skipper, Hammock Skipper, Rural Skipper, Sandhill Skipper (fq), Woodland Skipper, Orange Skipperling. Salt Heliotrope is a prime butterfly nectar plant! February – October.

Arctiidae: Caterpillar of Salt Marsh Moth (*Estigmene acrea*) photographed on it. Caterpillars often seen on it at the Ballona Wetlands. Apparently, a hostplant.

Pyrilidae: Eight-barred Lygropia (*Lygropia octonalis*) (Powell & Opler, p. 180).

Herissantia crispa. **Curly Abutilon. Bladder Mallow**. Malvaceae. August – September.

A larval host for the Gray Hairstreak and Mallow Scrub-Hairstreak.

Hesperocallis undulata. **Desert Lily**. Agavaceae. Flowers visited by hawkmoths. February – May.

Heterotheca subaxillaris. **Camphorweed**. Asteraceae. Astereae. Nectar: Queen. Many butterflies on few remaining flowers on (21 Nov 2012, Arizona) Dainty Sulphur (fq) and Fatal Metalmark (fq) (Heath & Klinkel, DesertLeps) August – October.

Hibiscus denudatus. **Rock Hibiscus. Pale Face**. Malvaceae. February-May.

Larval host for Mallow Scrub Hairstreak, Gray Hairstreak, Arizona Powdered-Skipper and Northern White-Skipper.

Hordeum jubatum. **Foxtail Barley**. Poaceae. Hordeae.

Oviposition by Sandhill Skipper recorded in Colorado by Scott.

Horsfordia newberryi. **Yellow Feltplant**. Malvaceae. March – April, November – December.

Larval host for Arizona Powdered-Skipper.

Hyptis emoryi is now *Condea emoryi*. **Desert Lavender**.

Ipomopsis tenuifolia. **Slender-leaved Ipomopsis**. Polemoniaceae. Nectar: long-tongued moths. April – June.

Isocoma acradenia. **Alkali Goldenbush**. Asteraceae. Astereae. Nectar: Checkered White, Sleepy Orange, American Snout, Queen, Variegated Fritillary, Painted Lady, California Patch, Great Purple Hairstreak (fq), Leda Ministreak, Western Pygmy-Blue, Palmer's Metalmark, Mojave Sootywing (fq), Northern White-Skipper, Funereal Duskywing, White Checkered-Skipper, Juba Skipper, and Sandhill Skipper. In Anza-Borrego, the Monroes find 14 butterfly species at Alkali Goldenbush flowers, one of their best nectar plants. August-November.

Tortricidae: *Sonia comstocki*, a root borer.

Juncus sp. **Rush**. Juncaceae.

Tortricidae: *Bactra furfurana*.

Juniperus californica. **California Juniper**. Cupressaceae.

California Juniper feeds caterpillars of the 'Loki' and 'Siva' Juniper Hairstreak.

Justicia californica. **Beloperone, Chuparosa, or Hummingbird Bush**. Acanthaceae. Nectar: Pipevine Swallowtail, Black Swallowtail, Western Tiger Swallowtail, Pale Swallowtail, Cloudless Sulphur, Mexican Yellow, Monarch (fq), Queen (fq), Painted Lady, West Coast Lady, Silvery Blue. Bob Allen finds Monarch and Queen often nectar on it at Fullerton Arboretum (SoWestLep #10578). Hummingbirds. March - June.

Hostplant for Tiny Checkerspot, which, as the Monroes note: "With sufficient winter/spring rains ... may flutter in abundance around Chuparosa."

Noctuidae: *Cobubatha dividua* (life history documented on Jennifer Bundy's Southwest Moths web site).

Keckiella antirrhinoides. **Yellow Bush Snapdragon**. Plantaginaceae. Nectar: Probably usually attracts butterflies as a larval host rather than nectar plant. April-May.

Hostplant for Chalcedon Checkerspot. Common Buckeye and American Lady also use *Antirrhinum* (Syn. *Keckiella*) as larval hosts. Host for Henne's Checkerspot, a segregate of the Variable Checkerspot (Monroes).

Keckiella antirrhinoides var. *microphylla*. **Chaparral Beardtongue**. Plantaginaceae. April-June.

Larval host for Chalcedon Checkerspot.

Geometridae: "*Semiothisa cyda* (Druce, 1893)" = the Mesquite Looper (*Rindgea cyda*).

Noctuidae: *Sympistis augustus*.

Krameria erecta. **Littleleaf Rhatany**. Krameriaceae. March – May.

Noctuidae: Littleleaf Krameria Moth (*Oxycnemis fusimacula*).

Langloisia setosissima. **Lilac Sunbonnet**. Polemoniaceae. Nectar: White Checkered-Skipper. January-June.

Larrea tridentata. **Creosote Bush**. Zygophyllaceae. Nectar: Southern Dogface. Painted Lady (fq). Gray Hairstreak. Western Pygmy-Blue, Ceraunus Blue, Marine Blue. Nectar usage by butterflies seldom noted, perhaps because of relatively much greater abundance of the plants; I suppose it likely is generally a secondary butterfly nectar source. Bumblebees. April-May.

Roosting for Small Dotted-Blue (Alice Abela) and likely others.

Geometridae: Creosote Moth (*Digrammia colorata*). *Synglochis perumbraria*. These geometrids can be abundant where the plant is common.

Lasthenia spp. **Goldfields**. Asteraceae. Heliantheae. Nectar: “Visited by many species of butterflies in very early spring when little else in flower” (Shapiro) – Common Buckeye, Ladies, Acmon Blue, Silvery Blue, Sandhill Skipper, Small Checkered-Skipper, White Checkered-Skipper – “almost anything flying” (Shapiro). *Schinia* spp. (Thorp & Leong).

Lasthenia californica. **Goldfields**. Asteraceae. Heliantheae. Nectar: California Tortoiseshell, Brown Elfin, Skippers, Kern Primrose Sphinx Moth. See *Lasthenia* spp. above – this the commonest species. February – June.

Lathyrus spp. **Wild Peas**. Fabaceae. Fabeae. Nectar: Swallowtails, Skippers.

Shapiro comments: “The NATIVE species only are larval hosts for ... Orange Sulphur ...”

Pyralidae: *Pima occidentalis* (BugGuide).

Lathyrus splendens. **Pride of California**. Fabaceae. Fabeae. March – June.

Lepidium densiflorum. **Common Peppergrass**. Brassicaceae. May – July.

Larval host for Checkered White and Cabbage White.

Lepidium fremontii. **Bush Peppergrass**. Brassicaceae. Nectar: Checkered White, West Coast Lady, Western Pygmy-Blue. March-June.

Larval host for California Marble and Checkered White (fq).

Considered worthy of cultivation.

Lepidium lasiocarpum. **Shaggyfruit Pepperweed**. Brassicaceae. March – June.

Larval host for Checkered White.

Lepidium nitidum. **Shining Peppergrass**. Brassicaceae. Slight nectar value. February-March.

Lepidospartum squamatum. **Scale Broom**. Asteraceae. Senecioneae. Nectar: Checkered White. Monarch, Queen (fq), American Lady, Painted Lady, Common Buckeye, Sagebrush Checkerspot. Fatal Metalmark. Brown Elfin, Gray Hairstreak, Great Purple Hairstreak, Acmon Blue, Western Pygmy-Blue, Pacific Dotted-Blue. Northern White-Skipper, Sandhill Skipper, Orange Skipperling. Also gets Tarantula Hawk wasp, other wasps and notable predatory flies. (Heath, SoWestLep #2806). An avidly sought nectar plant, documented in many photographs by David Horner and Marc Kummel. August – November.

Leptosyne californica was *Coreopsis californica*. **California Tickseed**. Asteraceae. Coreopsideae. Nectar: Painted Lady, likely others. February - June.

Considered worthy of cultivation.

Linanthus bigelovii. **Bigelow's Linanthus**. Polemoniaceae. Nectar: no records but flowers at night, “powerfully sweet-fragrant, sometime nauseously sweet” (Flora and Vegetation of the Mohawk Dunes, Arizona), very likely moth bait. March – May.

Linanthus pungens was *Leptodactylon pungens*. **Granite Prickly Phlox**. Polemoniaceae. Very fragrant flowers attract butterflies, especially Pierid and Lycaenid species, and White-lined Sphinx (*Hyles lineata*, Spingidae) and possibly other moths. May – August.

Lomatium dasycarpum. **Woollyfruit Desertparsley**. Apiaceae. Selineae. Nectar: Coastal Green Hairstreak, Brown Elfin. March - June.

Lomatium mohavense. **Mojave Desertparsley**. Apiaceae. Selineae. April – May.

Lonicera subspicata var. *denudata*. **Santa Barbara Honeysuckle**. Caprifoliaceae. Nectar: Gray Hairstreak, Acmon Blue, doubtless others. Rancho Santa Ana Botanic Garden lists as a butterfly plant. “Nectar for a number of butterflies” – Plants of the San Gabriel Mountains. Fragrant. June- July.

Lupinus spp. Lupines. Fabaceae. Genisteae. Nectar: Pipevine Swallowtail, Orange Sulphur, American Lady, Painted Lady, West Coast Lady, Gray Hairstreak, and Skippers. Scott rates Lupines generally unpopular as butterfly nectar plants, the nectar difficult to obtain; nevertheless, visited to some extent. Shapiro agrees.

Many species are likely caterpillar plants especially for Painted Lady, Gray Hairstreak and Acmon Blue.

Noctuidae: Garden Cutworm (*Fishia discors*).

Lupinus albifrons. **Silver Bush Lupine**. Fabaceae. Genisteae. Nectar: Brown Elfin. 'Great' for butterflies (Las Pilitas Nursery). Blues, painted ladies, gray hairstreaks, skippers (Yerba Buena Nursery). Bumblebees. March – June.

Larval host for Painted Lady. "Great as a host plant" (Shapiro).

Lupinus arizonicus. **Arizona Lupine**. Fabaceae. Genisteae. March-May.

A larval host for Painted Lady (Monroes).

Sphingidae: White-lined Sphinx (*Hyles lineata*) (Flora and Vegetation of the Mohawk Dunes, Arizona, Fig. 10).

Noctuidae: Alfalfa Semilooper (*Autographa californica*). Tobacco Budworm (*Chloridea virescens*). Corn Earworm (*Helicoverpa zea*). Beet Armyworm (*Spodoptera exigua*). Cabbage Looper (*Trichoplusia ni*).

Considered garden worthy.

Lupinus bicolor. **Miniature Lupine**. Fabaceae. Genisteae. Nectar: Silvery Blue (<https://www.inaturalist.org/observations/10491291>). Kern Primrose Sphinx Moth. Bumblebees. March – June.

Larval host for Orange Sulphur, Painted Lady, Acmon Blue, and Silvery Blue.

Used in revegetation.

Lupinus concinnus. **Bajada Lupine**. Fabaceae. Genisteae.

Hostplant for Painted Lady, noted in 1992.

Lupinus excubitus. **Grape Soda Lupine**. Fabaceae. Genisteae. Some nectar value. Bumblebees. Varieties flower in the range of April – July.

Grape Soda Lupine a consistent Painted Lady hostplant in Inyo County in the 1991 migration year.

Hostplant for Silvery Blue, also.

Lupinus sparsiflorus. **Coulter's Lupine**. Fabaceae. Genisteae. Bumblebees. March – May.

A favored Painted Lady larval host on Cedros Island.

Used in revegetation.

Lycium andersonii. **Anderson Thornbush**. Solanaceae. Nectar: Painted Lady, Sagebrush Checkerspot, Desert False Underwing (*Drasteria tejonica*, Noctuidae). Phaeton Primrose Sphinx (*Euproserpinus phaeton*, Sphingidae) (fq). Black-chinned Hummingbird. March – May.

Lycium brevipes. **Baja Wolfberry**. Solanaceae. Nectar: Pipevine Swallowtail, Desert Orangetip, Southern Dogface, Mexican Yellow, Sleepy Orange, Monarch, Queen (fq). Painted Lady, West Coast Lady, Variegated Fritillary, Great Purple Hairstreak, Reakirt's Blue, Western Pygmy-Blue, Funereal Duskywing (fq), White Checkered-Skipper, Fiery Skipper. Anza-Borrego Natural History Association web site, 26 Jan 09 notes it "mobbed by butterflies at Clark Lake". March – April.

Lycium fremontii. **Fremont's Wolfberry**. Solanaceae. Nectar: White-patched Skipper (*Chiomara georgina*), a Mexican butterfly not yet recorded for California on a cultivated specimen straying to a Pima County, Arizona yard (Philip Kline). Recommended for butterflies by Desert Survivors Nursery. A March – April.

Lythrum californicum. **California Loosestrife**. Lythraceae. Nectar: Cabbage White, Checkered White, Southern Dogface, Gray Hairstreak, Funereal Duskywing, White Checkered-Skipper, “skippers”, Orange Skipperling. A top butterfly nectar plant in Coronado National Memorial, Arizona. Planted in the butterfly garden at Lady Bird Johnson Wildflower Center in Austin, Texas.

Recommended for ecological restoration with butterflies in mind (Butler, 2015). April – September.

Attracts honeybees, soldier beetles and green sweat bees, too.

Malacothrix spp. **Desertdandelion**. Asteraceae. Cichorieae. Good butterfly nectar plants – Growing Native.

Malacothrix californica. **California Dandelion**. Asteraceae. Cichorieae. March-May.

Malosma laurina. **Laurel Sumac**. Anacardiaceae. Nectar: Rancho Santa Ana Botanic Garden commends it for butterfly nectar. June - July.

Geometridae: *Dichorda illustraria* (a mostly green moth).

Pyralidae: *Sciota bifasciella* (Powell & Opler, p. 191).

Saturniidae: Tuskes finds Electra Buckmoth (*Hemileuca electra*) frequently associated with it in undisturbed habitats; likely a host.

Malvella leprosa. **Alkali Mallow**. Malvaceae. Nectar: To some extent, for butterflies which utilize it as a larval host; and Western Pygmy-Blue, White-lined Sphinx (*Hyles lineata*, Sphingidae). April – November.

Alkali Mallow is a hostplant for West Coast Lady (fq), Painted Lady, Gray Hairstreak, Mallow Scrub-Hairstreak, White Checkered-Skipper, and Small Checkered-Skipper. Suitable lab host for Arizona Powdered-Skipper and Northern White-Skipper (Todd Stout).

Sesiidae: *Zenodoxus canescens*.

Alkali Mallow a tough plant surviving decades of mowing or cultivation in the low heavy soils it favors, persisting on grounds not treated with herbicides, as in a yard in an older Redwood City neighborhood.

Marah macrocarpa was *Marah macrocarpus*. **Cucamonga Manroot. Chilicothe**. Cucurbitaceae. January – April.

Sesiidae: Manroot Borer (*Melittia gloriosa*) – a female photographed at Bernard Field Station, 17 August 2015, (in Claremont, Los Angeles County) on this plant, suspected to be ovipositing.

Marina parryi was *Dalea parryi*. **Parry Dalea. Parry's False Prairie-clover.** Fabaceae. Amorpheae. Nectar: Dainty Sulphur, Marine Blue, Arizona Powdered-Skipper; "several" species of butterflies, says Fred Heath. February – June.

Foodplant for Southern Dogface (*Butterflies of Arizona*). Fred Heath saw oviposition by Reakirt's Blue on it in Arizona, 28 February 2015 (Desert Leps #20076). In a personal communication, he notes it being at least a recent favorite of Southern Dogface, also serving Ceraunus Blue, and Reakirt's Blue.

Melica imperfecta. **Smallflower Melic Grass.** Poaceae. Pooideae. Meliceae.

Smallflower Melic is a hostplant for the Rural Skipper (aka the Farmer). Jim Brock: "I found early instar larvae using aerial nests near Democrat Hot Springs in the lower Kern River Canyon. Subsequently they abandoned these aerial nests. I subsequently found at least two last instars 2.5 miles south of Bodfish, CA rolled up in the center of a large grass clump (*Melica imperfecta*) about three weeks later. I reared them through. I do not know the identity of the original grass from Democrat Hot Springs. It may be something else so it may be a case where the caterpillars pull the old switcheroo! I would guess that there are other native grasses supporting coastal populations of *agricola* since my specimens are from the rather unique *O. agricola* *versus* populations. The original larvae were not difficult to find, one just had to sort through all the European grasses to see them."

Mentzelia spp. **Blazingstar.** Loasaceae.

Noctuidae: *Schinia luxa* (BugGuide).

Mentzelia multiflora. **Adonis Blazingstar.** Loasaceae. Bumblebees.

Noctuidae: *Protogygia album*.

Mirabilis laevis var. *crassifolia* was *Mirabilis californica*. **California Four O'clock.** Nyctaginaceae. Flowers attract the White-lined Sphinx. Mostly December – June.

Geometridae: *Archirhoe neomexicana* – found on and reared from it on San Clemente Island (Powell & Opler, p. 225).

Heliodinidae: *Embola powellii*. *Neoheliodines vernius*.

Sphingidae: White-lined Sphinx (*Hyles lineata*) (BFS and Marc Kummel).

Mirabilis laevis var. *villosa* was *Mirabilis bigelovii*. **Bigelow's Four O'clock.** Nyctaginaceae. Flowers attract White-lined Sphinx (*Hyles lineata*, Sphingidae) and *Lithariapteryx jubarella* (Heliodinidae). More or less all year.

Sphingidae: White-lined Sphinx (*Hyles lineata*) (Connie Vadheim).

Heliodinidae: *Neoheliodines vernius* (BugGuide).

Mirabilis multiflora. **Colorado Four O'clock**. Nyctaginaceae. Nectar: White-lined Sphinx (*Hyles lineata*) (fq). Five-spotted Hawkmoth (*Manduca quinquemaculata*). Sweetly scented flowers. April – August.

Arctiidae: Salt Marsh Moth (*Estigmene acrea*).

Sphingidae: White-lined Sphinx (*Hyles lineata*).

Mirabilis multiflora var. *pubescens* (formerly *Mirabilis froebelii*). **Wild Four O'clock**. Nyctaginaceae. Nectar: Carolina Sphinx (*Manduca sexta*) White-lined Sphinx (*Hyles lineata*), Five-spotted Hawkmoth (*Manduca quinquemaculata*). Hummingbirds. April – August.

Mirabilis tenuiloba. **Long-lobed Four O'clock**. Nyctaginaceae. March – May.

Heliodinidae: *Embola powellii*.

Mohavea confertiflora. **Desert Ghost Flower**. Plantaginaceae. Scott says no nectar, mimics blazing star. March – April.

Noctuidae: Cabbage Looper (*Trichoplusia ni*) – documented by Jennifer Bundy on Southwest Moths. She had eggs of Scribbled Sallow (*Sympistis perscripta* aka *Lepipolys perscripta*, Noctuidae) some first instars fed upon offered flower buds of Nuttall's Snapdragon, but others did not with survivors successfully reared out on Desert Ghost Flower. She discovered yet another Oncocnemidinae caterpillar on it, yet to report as I write.

Muhlenbergia rigens. **Deergrass**. Poaceae. Chlorideae.

Larner Seeds says it supports caterpillars.

Nemophila menziesii. **Baby Blue Eyes**. Boraginaceae. Nectar: elsewhere, a variety of day-flying moths.

Seems rarely visited by Lepidoptera nowadays, but likely more important historically, when it was one of our most abundant wildflowers, in flower very early. In a pollination study a few unspecified Lepidoptera came to its flowers; 84% to 100% of flower visitors in six populations were bees, especially honeybees near cultivated areas. Vars. In flower from January – July; the commonly cultivated var. *menziesii*, February May.

Nicotiana obtusifolia. **Desert Tobacco**. Solanaceae. Nectar: Mojave Sootywing in Organ Pipe National Monument, Arizona. March – June.

Noctuidae: Cabbage Looper (*Trichoplusia ni*).

Nolina bigelovii. **Bigelow's Nolina**. Ruscaceae. Butterflies – Pollinator Partnership. Lycaenids, especially hairstreaks, and small moths are likely Lepidoptera flower visitors. May – June.

Oenothera californica. **California Evening Primrose**. Onagraceae. Nectar: moths (Pollinator Partnership). White-lined Sphinx an important pollinator for this species (Grant). April – June.

Sphingidae: White-lined Sphinx (*Hyles lineata*) – Monroes also find it an important host.

Oenothera deltoides. **Birdcage Evening Primrose** or **Desert Evening Primrose** or **Dune Evening Primrose** and other common names. Onagraceae. Pollinated mainly by White-lined Sphinx (*Hyleslineata*) with visits by Five-spotted Hawkmoth (*Manduca quinquemaculata*). March – May.

Sphingidae: Phaeton Primrose Sphinx (*Euproserpinus phaeton*). White-lined Sphinx (*Hyles lineata*).

Noctuidae: *Schinia felicitata*, which rests among the buds and blossoms in the daytime.

Olneya tesota. **Desert Ironwood**. Fabaceae. Robinieae. April – May.

Larval host for Funereal Duskywing. Indirectly supports other Lepidoptera species such as Great Purple Hairstreak, as a Desert Mistletoe (*Phoradendron californicum*) host.

Geometridae: *Glaucina eupithecaria* (Powell & Opler, p. 207).

Palafoxia arida. **Spanish Needle**. Asteraceae. Bahieae. Nectar: Harford's Sulphur, Dainty Sulphur, Sleepy Orange, Sara Orangetip, Becker's White, Checkered White, Ceraunus Blue, Mojave Sootywing, White Checkered-Skipper, Fiery Skipper. The Monroes rate Spanish Needle in the top ten of Anza Borrego butterfly nectar plants, listing nine species. January – September.

A hostplant for Dainty Sulphur.

Noctuidae: Spanish Needle is a nectar plant, roosting site and larval host for *Schinia niveicosta*.

Pyralidae: *Honora mellinella*, which lives in its flower heads.

Used for revegetation.

Palafoxia arida var. *gigantea* was *Palafoxia linearis* var. *gigantea*. **Giant Spanish Needle**. Asteraceae. Bahieae. February - May.

Noctuidae: *Schinia niveicosta* (Powell & Opler, p.293).

Parietaria hespera var. *hespera*. **Rillita Pellitory**. Urticaceae.

Red Admiral hostplant.

Parkinsonia spp. Palo Verde. Fabaceae. Caesalpinieae.

Noctuidae: *Forsebia* (*Forsebia cinis*) -- “Parkinsonia and other woody legumes” (Powell & Opler, p. 258)

Parkinsonia florida was *Cercidium floridum*. **Blue Palo Verde**. Fabaceae. Caesalpinieae. Nectar: Painted Lady, Ceraunus Blue. April – May.

Blue Palo Verde hosts Desert Mistletoe (*Phoradendron californicum*), hostplant for Great Purple Hairstreak, thus indirectly supporting its populations.

Tortricidae: The related southerly *Parkinsonia aculeata* is a hostplant for *Ofatulena duodecemstriata* and Omnivorous Leafroller (*Platynota stultana*).

Parkinsonia microphylla was *Cercidium microphyllum*. **Little-leaved Palo Verde**. Fabaceae. Caesalpinieae. Flowers in April – May, often about two weeks later than Blue Palo Verde.

Tortricidae: The related southerly *Parkinsonia aculeata* is a hostplant for *Ofatulena duodecemstriata* and Omnivorous Leafroller (*Platynota stultana*).

Pectis papposa. **Cinchweed**. Asteraceae. Tageteae. Nectar: Orange Sulphur, Painted Lady, Sagebrush Checkerspot, White Checkered-Skipper. Flowers after summer rain mostly August – November, but as early as June or as late as January.

Larval host for Dainty Sulphur.

Noctuidae: Cabbage Looper (*Trichoplusia ni*).

Used for revegetation.

Pectocarya heterocarpa. **Mixed-nut Pectocarya**. Boraginaceae. February – May.

Painted Lady hostplant in Inyo County in the 1991 migration year.

Pectocarya recurvata. **Arched-nut Pectocarya**. Boraginaceae. February – May.

1991 Season Summary reports small Painted Lady larvae in huge numbers on it in San Bernardino County (JFE).

Penstemon spp. **Beardtongues**. Plantaginaceae. Shapiro finds butterflies at nectar through carpenter bee bites at the base of the corollas – except for Pipevine Swallowtail, one of the longer-tongued butterflies, which commonly visits red flowers. *Penstemon* considered “engineered” as bee flowers, not to serve butterflies. Hummingbirds like *Penstemon* flowers.

Several *Penstemon* are larval hosts of populations of Chalcedon Checkerspot and sporadically for Common Buckeye, which may account for much of their butterfly interest.

Penstemon centranthifolius. **Scarlet Bugler**. Plantaginaceae. Nectar: Pale Swallowtail. Hummingbirds. April-July.

Alice Abela confirms it a Chalcedon Checkerspot hostplant (Santa Barbara County, 7 June 2010, Flickr).

Penstemon pseudospectabilis. **Pink Showy Penstemon**. Plantaginaceae. Nectar: Elsewhere, Anise Swallowtail. Hummingbirds. March-May.

Lange, Ronald S., and Peter E. Scott. 1999. "Hummingbird and Bee Pollination of *Penstemon pseudospectabilis*." *The Journal of the Torrey Botanical Society* 126 (2): 99-106. doi:10.2307/2997285.

Penstemon spectabilis. **Showy Penstemon**. Plantaginaceae. Theodore Payne Butterfly Mixture component. Nectar: White-lined Sphinx. Good for hummingbirds. April-June.

Peritoma arborea was *Isomeris arborea*. **Bladderpod**. Cleomaceae formerly Capparaceae. Nectar: Becker's White, Spring White, Sara Orangetip, Monarch, Red Admiral, Painted Lady (fq), Coastal Green Hairstreak, Silvery Blue, Funereal Duskywing, White-lined Sphinx, and Alfalfa Semilooper (*Autographa californica*, Noctuidae). The Monroes find it one of the best in Anza-Borrego Desert State Park. Hummingbirds. Var. *arborea* flowers all year; the others for many months.

In Shapiro's central California garden experience, Lepidoptera rarely visits its flowers. Bladderpod likely works well in desert situations partly because of it flowers most years and over a long period. Secondary nectar sources get visits when primary sources are not available. Being a major Becker's White hostplant, thus visited frequently by it in desert areas where it is prevalent, may also get it attention from other butterfly species. I think they are copycats!

Becker's White larval host, its major host in much of southern California. Cabbage White may use it as a larval host in gardens (Shapiro, personal communication).

Perityle emoryi. **Emory's Rock Daisy**. Asteraceae. Nectar: Sagebrush Checkerspot, California Patch, Fiery Skipper. January – June, October – November.

Pescicaria hydropiperoides was *Polygonum hydropiperoides*. **False Waterpepper**. Polygonaceae. Nectar: Viceroy, Red Admiral, Pearl Crescent, Gray Hairstreak, Long-tailed Skipper, and Fiery Skipper. June – October.

Pescicaria lapathifolia was *Polygonum lapathifolium*. **Willow Smartweed**. Pale Smartweed. Polygonaceae. Nectar: Orange Sulphur, Bordered Patch, Western Pygmy-Blue, Sandhill Skipper, Eufala Skipper. June – October.

Foodplant for Gray Hairstreak.

Pescicaria punctata was *Polygonum punctatum*. **Dotted Smartweed**. Polygonaceae. Nectar: Common Buckeye. June – November.

Widely planted as waterfowl food.

Petalonyx thurberi. **Sandpaper Plant**. Loasaceae. Nectar: Checkered White, Orange Sulphur, California Patch, Western Pygmy-Blue, Mojave Sootywing, Fiery Skipper. Very fragrant flowers attract a wide variety of insects notes Hartmut Wisch in BugGuide. May – July.

Peucephyllum schottii. **Schott's Pygmycedar**. Asteraceae. Bahieae. Nectar: Painted Lady, White-lined Sphinx. December – June.

Phacelia campanularia. **Desert Bluebells**. Boraginaceae. Nectar: Butterflies, White-lined Sphinx. February – May.

Desert Bluebells are food for Painted Lady larvae.

Phacelia cicutaria. **Caterpillar Phacelia**. Boraginaceae. Nectar: Chalcedon Checkerspot, Acmon Blue, Silvery Blue. February – June.

Phacelia crenulata. **Notch-leaved Phacelia**. Boraginaceae. March-May.

Phacelia distans. **Common Phacelia**. Boraginaceae. Nectar: Sara Orangetip, Harford's Sulphur, Painted Lady, Mourning Cloak, California Patch, Marine Blue, Arizona Powdered-Skipper, Funereal Duskywing, and Orange Skipperling. March – May.

Phacelia parryi. **Parry's Phacelia**. Boraginaceae. Nectar: White-lined Sphinx. March – May.

Phacelia ramosissima. **Branching Phacelia**. Boraginaceae. Commended for butterfly gardens (Barbara Deutsch). April – October.

Depressariidae: *Ethmia timberlakei* (Powell & Opler, p 70).

Phacelia tanacetifolia. **Tansyleaf Phacelia** or **Beefood**. Boraginaceae. Nectar: Orange Sulphur, Cabbage White, West Coast Lady, Painted Lady, Common Buckeye, a grass skipper; moths. Bumblebees and beeflies. March – May.

Depressariidae: *Ethmia* spp., two "undescribed", related to *E. geranella*, *E. macneilli*, and *E. timberlakei* (Powell & Opler, p. 70).

Pholisma arenarium. **Dune Food**. Boraginaceae. April – July.

Pyralidae: *Rhagea packardella* (Powell & Opler, p. 195).

Pholisma sonora. **Sand Food**. Boraginaceae. April - May. Nectar: Painted Lady observed 14 times in a study of insects visiting its flowers from 24 April to 4 May 2001 (Wiesenborn, W. D. 2003. "Insects on *Pholisma sonora* (Lennoaceae) flowers and their conspecific pollen loads." *Madroño* 50 (2): 110–114, cited on page 112).

Pholistoma auritum. **Purple Fiesta Flower**. Boraginaceae. Nectar: Sara Orangetip. March – June.

Formerly one of Clyde Robin's "Foolproof Wildflowers" – large seeds, easy to grow.

Phoradendron bolleanum was *Phoradendron densum*. **Bollean Mistletoe**. **Dense Mistletoe**. Viscaceae. June - August.

Hostplant for Great Purple Hairstreak.

It is parasitic on native *Juniperus* (junipers) and *Pinus monophylla* (Singleleaf Pinyon) in juniper/pinyon woodlands.

Phoradendron californicum. **Desert Mistletoe**. Viscaceae. Nectar: Coastal Green Hairstreak, Silvery Blue. "Exquisitely fragrant" says Mary Klinkel, (SoWestLep #11032). She saw American Snout at nectar on it, January 2013 (SoWestLep #12220). Also, Great Purple Hairstreak (Klinkel, SoWestLep #13801). January-March.

Hostplant for Great Purple Hairstreak.

Noctuidae: Beloved Emarginea (*Emarginea percara*).

Desert Mistletoe is parasitic on *Senegalia greggii* (Catclaw Acacia), *Cercidium* (palo verde), *Larrea* (creosote bush), *Olneya* (desert ironwood), *Parkinsonia* (palo verde), *Prosopis* (mesquites), and *Simmondsia* (jojoba). Thus, these trees indirectly support Great Purple Hairstreak and the Beloved Emarginea. Its fruits are the most important food for Phainopepla from October through April.

Phoradendron leucarpum subsp. *macrophyllum* was *Phoradendron serotinum* subsp. *macrophyllum*.
Bigleaf Mistletoe. Viscaceae. December - March.

Hostplant for the Great Purple Hairstreak.

It attaches to deciduous broadleaf trees other than *Quercus* such as *Fraxinus* (ashes), *Platanus* (sycamores), *Populus* (cottonwoods and poplars), *Robinia* (locust), and *Salix* (willows).

Phoradendron leucarpum subsp. *tomentosum* was *Phoradendron serotinum* subsp. *tomentosum*, formerly *P. villosum*. Oak Mistletoe. Viscaceae. Nectar: Great Purple Hairstreak (Kate Marianchild, Secrets of the oak woodlands: plants and animals among California's oaks). July - September.

Hostplant for Great Purple Hairstreak.

It grows mostly on *Quercus* (oaks), rarely on *Adenostoma* (chamise), *Arctostaphylos* (manzanita), *Rhus*, and *Umbellularia* (California laurel).

Phragmites australis. **Common Reed.** Poaceae. Molinieae.

Hostplant for Yuma Skipper, in California thus far seen developing only on the native strains. Shapiro: "So far our populations have not contacted the weedy one and we do not know if they would make use of it." Yuma Skipper has not been recorded for Imperial County but should be looked for; the hostplant is present at many sites, as documented on Calflora.

Phyla spp. **Frogfruit.** Verbenaceae. Nectar: Cabbage White, Checkered White, Painted Lady, West Coast Lady, Common Buckeye, Phaon Crescent, Tiny Checkerspot, Palmer's Metalmark, Gray Hairstreak, Mallow Scrub-Hairstreak, Acmon Blue, Western Pygmy-Blue, Common Sootywing, Small Checkered-Skipper, Orange Skipperling, Sandhill Skipper, Eufala Skipper.

Phyla nodiflora (aka Lippia). **Frogfruit.** Verbenaceae. Nectar: Checkered White, Cabbage White, Dainty Sulphur, Orange Sulphur. Queen, Gulf Fritillary, Variegated Fritillary (fq), Ladies, Common Buckeye (fq), Pearl Crescent, Phaon Crescent, Bordered Patch. Gray Hairstreak, Acmon Blue, Ceraunus Blue, Reakirt's Blue. Common Sootywing, Small Checkered-Skipper, White Checkered-Skipper, Rural Skipper, Sandhill Skipper (fq), Eufala Skipper (fq), Fiery Skipper, Sachem, Woodland Skipper. Shapiro: "extremely popular"! I find flowering patches usually attended by butterflies. May – November.

Larval host for the Phaon Crescent (aka Mat-plant Crescent) and Common Buckeye.

Physalis sp. **Groundcherry.** Solanaceae.

Gelechiidae: *Scrobipalpa physaliella* (HOSTS). *Symmetrischema lavernella* (HOSTS).

Noctuidae: Corn Earworm (*Helicoverpa zea*) (HOSTS). Subflexus Straw Moth (*Heliothis subflexa*) (HOSTS). Tobacco Budworm (*Heliothis virescens*) (HOSTS). Western Bean Cutworm (*Striacosta albicosta*) (HOSTS). Dolichos Armyworm (*Spodoptera dolichos*) (HOSTS).

Pyralidae: Nightshade Leaf-tier (*Lineodes integra*) (HOSTS).

Physalis acutifolia was *Physalis wrightii*. **Sharpleaf Groundcherry**. Solanaceae. July – October.

Physalis crassifolia. **Thick-leaved Ground Cherry**. Solanaceae. Nectar: Sleepy Orange, Ceraunus Blue, White Checkered-Skipper. March – May.

Physaria spp. Brassicaceae.

Checkered White (HOSTS).

Physaria tenella. **Little Bladderpod**. Brassicaceae. February – April.

This is a *Physaria* recorded for Imperial County.

Pickeringia montana. **Chaparral Pea**. Fabaceae. Thermopsidae. Nectar: Pale Swallowtail, Gabb's Checkerspot, Gray Hairstreak. Marine Blue, Rural Skipper [photographs of a perched specimen, suspected nectar source] (Russell Towle). May – August.

Pinus monophylla. **Singleleaf Pinyon Pine**. Pinaceae.

Pinus quadrifolia. **Parry Pinyon Pine**. Pinaceae.

Plantago spp. **Plantains**. Plantaginaceae.

Wind-pollinated, their primary attraction for butterflies is as larval hosts. Naturalized non-native *Plantago* are important Common Buckeye foodplants. Some *Plantago* serve Variegated Fritillary, infrequently Chalcedon Checkerspot, sometimes Pearl Crescent (HOSTS) or even Painted Lady (HOSTS)..

Many generalist herbaceous feeders eat *Plantago*, representative of relatively non-toxic herbs.

Arctiidae: Salt Marsh Moth (*Estigmene acrea*) (HOSTS). Mexican Tiger Moth (*Apantesis proxima*).

Noctuidae: Green Cutworm (*Anicla infecta*) (HOSTS). Pearly Underwing or Variegated Cutworm (*Peridroma saucia*) (HOSTS). Small Mottled Willow or Beet Armyworm (*Spodoptera exigua*.) (HOSTS). Cabbage Looper (*Trichoplusia ni*) (HOSTS).

Pyralidae: Bold-feathered Grass Moth (*Herpetogramma pertextalis*) (HOSTS).

Sphingidae: White-lined Sphinx (*Hyles lineata*) (HOSTS).

Plantago erecta. **California Plantain**. Plantaginaceae.

Larval host for Chalcedon Checkerspot and the Common Buckeye (rarely used, according to Scott, in comparison to English plantain).

Plantago ovata var. *insularis* was *Plantago insularis*. **Desert Plantain**. Plantaginaceae. February – April.

Hostplant for the Common Buckeye. One small Painted Lady larva found on it reared to adulthood in 1991 migration event (1991 Season Summary, San Bernardino County (JFE).

Plantago patagonica. **Southwestern Plantain**. Plantaginaceae.

Foodplant for Common Buckeye (Monroes).

Pleurocoronis pluriseta (syn. *Hofmeisteria pluriseta*. **Bush Arrowleaf**. Asteraceae. Eupatorieae. October – June.

A common shrub found in several southwestern states, but little recognized; I can find nothing about its insect associations; the tribal assignment indicates it might be a nectar plant.

Pluchea odorata. **Salt Marsh Fleabane** or **Sweetscent**. Asteraceae. Plucheeae. Nectar: Orange Sulphur, Monarch, West Coast Lady, Variegated Fritillary, Gray Hairstreak, Fiery Skipper. Attracts ‘a variety of butterflies’ sometimes ‘in large numbers’ (Shapiro). Recommended for butterflies by the Xerces Society. Especially “skippers, blues, hairstreaks” (Mother Nature’s Backyard) -- and native bees, including metallic green *Agapostemon* species. June – November.

Geometridae: Southern Emerald (*Synchlora frondaria*).

Easy to grow.

Pluchea sericea. **Desert Arrowweed**. Asteraceae. Plucheeae. Nectar: Checkered White, Cabbage White, Painted Lady, Bordered Patch, California Patch, Queen, Great Purple Hairstreak, Gray Hairstreak, Western Pygmy-Blue, Marine Blue, Reakirt’s Blue, Mojave Sootywing, Northern White-Skipper, Yuma Skipper, Eufala Skipper, Orange Skipperling. The Monroes list ten butterfly species at nectar on it in the Anza-Borrego area. March – July.

Noctuidae: *Schinia intrabilis*.

Used in revegetation, spreads readily.

Poaceae. **Grasses**.

Precise hostplants of most grass-feeding butterflies and moths are not well known. Identifying grasses is difficult, the grass feeding butterflies and moths sometimes difficult to identify, with rather secretive caterpillars!

Butterflies whose caterpillars eat grasses include Eufala Skipper. Fiery Skipper, Juba Skipper, Orange Skipperling. Rural Skipper, Sandhill Skipper, Woodland Skipper, and other skippers.

Noctuidae: Black Cutworm (*Agrotis ipsilon*). Green Cutworm (*Anicla infecta*). Alfalfa Semilooper (*Autographa californica*). Army Cutworm (*Euxoa auxiliaris*). Broken-line Brocade (*Mesapamea fractilinea*). Armyworm (*Mythimna unipuncta*). *Parabagrotis exsertistigma*. Fall Armyworm (*Spodoptera frugiperda*).

Pyralidae: Lesser Cornstalk Borer (*Elasmopalpus lignosellus*). North American Grass Webworm (*Nomophila nearctica*).

Polygala sp. **Milkwort**. Polygalaceae.

Noctuidae: Showy Milkwort (*Polygala grandiflora*), native to the southeastern United States, is hostplant for *Dypterygia patina*, a moth collected in Imperial County. Perhaps it eats a Californian desert *Polygala*).

Polygala acanthoclada. **Desert Polygala**. **Thorny Milkwort**. May – August.

This is the *Polygala* species known from Imperial County, classified as a shrub or subshrub, the likely host for *Dypterygia patina* (Noctuidae).

Populus spp. **Cottonwoods, Aspens.** Salicaceae. Their wind-pollinated flowers offer no nectar, no scent, thus, unlike the related willows, do not attract Lepidoptera.

Butterflies whose caterpillars eat cottonwoods include Mourning Cloak (Haggard). Todd Stout finds any species works as a lab host for Viceroy.

Noctuidae. *Abagrotis orbis*.

Populus fremontii. **Fremont Cottonwood.** Salicaceae.

Hostplant for Western Tiger Swallowtail, Viceroy (including *obsoleta*, Todd Stout), and Mourning Cloak.

Cossidae. Locust Borer (*Prionoxystus robiniae*).

Geometridae. *Digrammia irrorata*.

Lasiocampidae. Pacific Tent Caterpillar (*Malacosoma constricta*).

Notodontidae. Gray Kitten (*Furcula cinerea*).

Saturniidae. Polyphemus Moth (*Antheraea polyphemus*).

Sphingidae. Big Poplar Sphinx (fq) (*Pachysphinx occidentalis*). One-eyed Sphinx (“*Smerinthus cerisyi*”) -- in California, it is really *Smerinthus ophthalmica*, with *S. cerisyi*, actually, a ringer that is not thought extant in California.

Porophyllum gracile. **Odora. Yerba del Venado.** Asteraceae. Tageteae. Nectar: Southern Dogface, California Patch, Ceraunus Blue. September – June.

Proboscidea althaeifolia. **Desert Devil’s Claw.** Martyniaceae (Pedaliaceae). May – August.

Prosopis sp. **Mesquite.** Fabaceae. Mimoseae.

Noctuidae: Anvil-wing Moth (*Hemeroplanis incusalis*) “eats mesquite and other legumes” (BugGuide). *Heteranasa mima*.

Prosopis glandulosa var. *torreyana*. **Honey Mesquite.** Fabaceae. Mimoseae. Nectar: Checkered White, American Snout, Queen, Palmer’s Metalmark, Western Pygmy-Blue, Marine Blue, Ceraunus Blue, Reakirt’s Blue, Great Purple Hairstreak, Gray Hairstreak, Leda Ministreak, Mojave Sootywing, Fiery Skipper, likely nectar plant for Long-tailed Skipper, for which it is a hostplant. April – August.

Hostplant for Palmer’s Metalmark (Heath), Leda Ministreak, Marine Blue (Monroes), Reakirt’s Blue (Garth & Tilden), Ceraunus Blue (including the segregate known as Edward’s Blue[Emmel & Emmel]), (Monroes), Long-tailed Skipper (Garth). Supports Desert Mistletoe, a Great Purple Hairstreak hostplant.

Noctuidae: *Bulia deducta*. Indomitable Melipotis (*Melipotis indomita*). Gray Looper (*Rachiplusia ou*).

Tortricidae: *Cydia membrosa* (not recorded for Imperial County but found in counties east and west).

Prosopis pubescens. **Screwbean Mesquite**. Fabaceae. Mimoseae. Nectar: Checkered White, Queen, Palmer's Metalmark, Marine Blue, Ceraunus Blue, Reakirt's Blue, Gray Hairstreak, and Yuma Skipper (this skipper not recorded from the county but to be looked for). April – September.

Hostplant for Ceraunus Blue, Marine Blue, Reakirt's Blue (Monroes).

Hosting the parasitic Desert Mistletoe (*Phoradendron californicum*), it indirectly supports Great Purple Hairstreak.

Noctuidae: *Heteranassa fraterna* [Jennifer Bundy].

Prunus fasciculata. **Desert Almond**. Rosaceae. Amygdaleae. Nectar: Juniper Hairstreak, Coastal Green Hairstreak. March – May.

Prunus fremontii. **Desert Apricot**. Rosaceae. Amygdaleae. Nectar: Black Swallowtail, Spring White (fq) (Frank S. Model, SWLEps 02/17/16, "irresistible"), Desert Orangetip, Sara Orangetip, Painted Lady, West Coast Lady, California Patch, American Snout, Brown Elfin, Coastal Green Hairstreak, Juniper Hairstreak, Silvery Blue, Acmon Blue, Funereal Duskywing. It rates in the top six of Anza-Borrego butterfly nectar plants, attracting 13 species – "a wonderful nectar plant" – Lynn Monroe (SoWestLep #7499). January – March.

Noctuidae: early instar *Sympistis bakeri* were found on it and reared to adults, pupating in the soil (Jennifer Bundy).

Prunus ilicifolia. **Hollyleaf Cherry**. Rosaceae. Amygdaleae. Nectar: Western Tiger Swallowtail, Pale Swallowtail, California Sister, Red Admiral, California Tortoiseshell, Chalcedon Checkerspot, Brown Elfin, with 'other butterflies' (natureshutterbug.com). Honeybees. April – May.

Foodplant for Western Tiger Swallowtail and Pale Swallowtail.

Psathyrotes ramosissima. **Turtleback**. Asteraceae. Helenieae. Nectar: Western Pygmy Blue. March – June.

Pseudognaphalium biolettii was *Gnaphalium bicolor*. **Two-color Cudweed**. **Bioletti's Cudweed**. **Pungent Cudweed**. Asteraceae. Gnaphalieae. Silvery Blue. Tree of Life Nursery Butterfly Mix. April – June.

Larval host for American Lady.

Noctuidae: Everlasting Bud Moth (*Eublemma minima*) likely feeds on this species.

Pseudognaphalium stramineum was *Gnaphalium stramineum*. **Cottonbatting Plant**. Asteraceae. Gnaphalieae. Some nectar value for Woodland Skipper. March – August.

Proved to be a larval host for the American Lady in the East Bay Wilds Nursery.

Noctuidae: Everlasting Bud Moth (*Eublemma minima*) likely feeds on this species.

Pseudorontium cyathiferum (syn. *Antirrhinum cyathiferum*). **Deep Canyon Snapdragon**. Plantaginaceae. January – April.

Possible for Common Buckeye, which may use *Antirrhinum* as a host. At times even American Lady may use *Antirrhinum* as a host (HOSTS).

Noctuidae: Scribbled Sallow (*Sympistis perscripta*) uses *Antirrhinum*, so seems a possible host for it. Cabbage Looper (*Trichoplusia ni*) also possible.

Pyrallidae: Greenhouse Leaf-tier (*Udea rubigalis*) possible; uses *Antirrhinum* as a host (HOSTS).

Psilostrophe cooperi. **Whitestem Paperflower**. Asteraceae. Helenieae. Nectar: Painted Lady. March – July. October – January.

Psorothamnus emoryi (*Dalea emoryi*). **Dyebush**. Fabaceae. Amorpheae. March – May.

Psorothamnus fremontii. **Fremont Indigobush**. Fremont Dalea. Fabaceae. Amorpheae. Nectar: Painted Lady (fq), Ceraunus Blue. Bumblebees. April – May.

Hostplant for Southern Dogface (Ken Davenport). Possible Painted Lady hostplant, since it eats legumes, even *Psorothamnus schottii*. Larval host for Ceraunus Blue.

Psorothamnus polydenius (*Dalea polydenia*). **Dotted Dalea. Nevada Dalea. Nevada Indigobush**. Fabaceae. Amorpheae. Nectar: Marine Blue, Western Pygmy-Blue. May – September.

Marine Blue caterpillars sometimes eat legumes; Nevada Dalea might be a hostplant for it.

Psorothamnus schottii (*Dalea schottii*, *Parosela schottii* var. *puberula*). **Schott Indigobush**. Fabaceae. Amorpheae. Nectar: Ceraunus Blue. Bumblebees. March – May.

Larval host for Painted Lady. Might be a hostplant for Ceraunus Blue, as with *Psorothamnus fremontii*.

Psorothamnus spinosus (*Dalea spinosa*). **Smoke Tree**. Fabaceae. Amorpheae. Gets some butterflies, such as, elsewhere, the Desert Metalmark (a segregate of Mormon Metalmark). Bumblebees. Said to have a lovely fragrance. June – July, with at times more flowers October – November.

Purshia tridentata. **Antelope Bitterbrush**. Rosaceae. Dryadeae. Scott notes one visit by Western Tiger Swallowtail. Shapiro: “Occasionally visited by Juniper Hairstreak, but I don’t know if it gets any nectar!” March – July.

Noctuidae: Garden Cutworm (*Fishia discors*).

Quercus cornelius-mulleri. **Desert Scrub Oak**. Fagaceae. Lepidobalanus, white oaks subgenus.

Quercus turbinella. **Grey Oak. Sonoran Scrub Oak. Shrub Live Oak**. Fagaceae. Lepidobalanus, white oaks subgenus.

Todd Stout saw Arizona Sister feeding on split galls of this oak in southwestern Utah. Fred Heath, the same behavior on split oak galls in SE Arizona, presumably for their sugar content. He finds Colorado Hairstreak (Arizona) and the Snout (in Texas) do the same.

Larval host for the California Sister.

Gracillariidae: *Cameraria jacintoensis* (known from Riverside and San Diego Counties).

Lasiocampidae: Pacific Tent Caterpillar (*Malacosoma constricta*, CODA). Sonoran Tent Caterpillar (*Malacosoma tigris*), a little-known species to be looked for in California on this oak.

Saturniidae: Grote's Buckmoth (*Hemileuca grotei*), not recorded in California, found on it in western Arizona.

Quercus wislizeni. **Interior Live Oak**. Fagaceae. Erythrobalanus, black oaks subgenus.

Foodplant for California Sister. Supports Oak Mistletoe (*Phoradendron leucarpum* subsp. *tomentosum*), hostplant for Great Purple Hairstreak.

Geometridae: *Digrammia muscariata* (CODA) (known from Riverside and San Diego County).

Lasiocampidae: Pacific Tent Caterpillar (*Malacosoma constricta*).

Quercus wislizeni var. *frutescens*. Scrub Live Oak. Fagaceae. Erythrobalanus, black oaks subgenus.

Rafinesquia californica. **California Chicory**. Asteraceae. Cichorieae. Nectar: photographs that appear to be this plant (elsewhere) show California Dogface at nectar. April – July.

Rafinesquia neomexicana. **Desert Chicory**. Asteraceae. Cichorieae. Photographs that appear to be this plant show Orange Sulphur and a checkerspot at nectar. February – June.

Rhamnus ilicifolia. **Hollyleaf Redberry**. Nectar: Silvery Blue, others. March – June.

Paul Johnson reports it a Pale Swallowtail hostplant in Pinnacles National Monument.

Geometridae: California Tissue Moth (*Triphosa californiata*) [Seven Backyards web site].

Rhus spp. **Sumac**. Anacardiaceae.

Noctuidae: Pearly Underwing or Variegated Cutworm (*Peridroma saucia*).

Rhus aromatica was *Rhus trilobata*. **Squaw Bush**. Anacardiaceae. Nectar: Desert Marble (closely related to California Marble), Painted Lady, Chalcedon Checkerspot (fq), California Tortoiseshell, Brown Elfin, Gray Hairstreak, Juniper Hairstreak, Western Pygmy-Blue, Marine Blue, Reakirt's Blue. March - May.

Geometridae: Two emeralds: Dichorda illustraria. Phoenix Emerald (*Dichordophora phoenix*).

Rhus ovata. **Sugarbush**. Anacardiaceae. Nectar: Pale Swallowtail, Checkered White, Chalcedon Checkerspot, Red Admiral, California Sister (fq), California Tortoiseshell, Brown Elfin, Coastal Green Hairstreak, Juniper Hairstreak (fq), Great Purple Hairstreak, Silvery Blue, Funereal Duskywing, Desert False Underwing ("*Drasteria tejonica*", Noctuidae). Brett Badeaux sees especially California Sister and Red Admiral, not much else. March - May.

Rhus trilobata is now *Rhus aromatica*. **Squaw Bush**.

Ribes indecorum (*Ribes malvaceum* var. *indecorum*). **White Flowering Currant**. Grossulariaceae.

Noctuidae: Tobacco Budworm (*Chloridea virescens*), a generalist feeder, eats *Ribes malvaceum*, likely this one also (HOSTS).

Ribes quercetorum (*Ribes congdonii*, *Grossularia quercetora*). **Oak Gooseberry**. Grossulariaceae. Nectar: West Coast Lady, Red Admiral. March – May.

Rorippa curvisiliqua. **Western Yellowcress**. Brassicaceae. May –October.

Checkered White observed ovipositing on it in the Trinity Alps area (Shapiro). Listed as a foodplant for Checkered White and Cabbage White.

Rorippa palustris subsp. *palustris*. **Western Bog Yellow Cress**. Brassicaceae. March – September.

Foodplant for Cabbage White.

Rumex spp. **Dock**. Polygonaceae.

Painted Lady, quite polyphagous, may eat dock (HOSTS).

Arctiidae: Salt Marsh Moth (*Estigmene acrea*) (HOSTS)

Noctuidae: Alfalfa Semilooper (*Autographa californica*) (HOSTS). Tobacco Budworm (*Chloridea virescens*) (HOSTS). Pearly Underwing or Variegated Cutworm (*Peridroma saucia*) (HOSTS). Yellowstriped Armyworm (*Spodoptera ornithogalli*) (HOSTS). Cabbage Looper (*Trichoplusia ni*) (HOSTS).

Sphingidae: White-lined Sphinx (*Hyles lineata*), quite polyphagous, may eat docks (HOSTS).

Rumex fueginus (*Rumex maritimus*). **Golden Dock**. Polygonaceae.

Rumex violascens. **Mexican Dock**. Polygonaceae.

This is the widespread native dock species in the county.

Rupertia rigida (*Psoralea rigida*). **Parish's Rupertia**. Fabaceae. Psoraleeae. June – August.

Orange Sulphur might possibly use it; recorded for "Psoralea" (HOSTS).

Salix spp. **Willows**. Salicaceae. Nectar: Sagebrush Checkerspot, Leanira Checkerspot, West Coast Lady, Mourning Cloak, California Tortoiseshell, Brown Elfin, Western Gray Hairstreak, Juniper Hairstreak, Great Purple Hairstreak, Juba Skipper. Shapiro: "Willow catkins produce nectar attractive to early spring butterflies"

Leverton in England notes willow blossom is "the first great feast of the year for moths". He finds a dozen or so species of moths in great numbers on the flowers, mostly in the hour after dark. Few make such observations in this country.

Willow sap from sapsucker wounds draws Red Admiral, Mourning Cloak, and other sap feeders, especially moths.

Larval hosts for Western Tiger Swallowtail, Mourning Cloak; Todd Stout finds any willow works as a larval host for Viceroy.

Willows are difficult to identify, quite variable, hybridizing readily, which in part may account for the vagueness of many hostplant records.

Cossidae: Locust Borer (*Prionoxystus robiniae*).

Geometridae: *Digrammia irrorata*.

Noctuidae: Garden Cutworm (*Fishia discors*). Pearly Underwing or Variegated Cutworm (*Peridroma saucia*).

Sphingidae: the western One-eyed Sphinx (*Smerinthus ophthalmica*) is “a Salicaceae specialist” (PNW Moths). Big Poplar Sphinx (*Pachysphinx occidentalis*).

Salix exigua. **Narrowleaf Willow**. Salicaceae. A nectar or sweet sap source (listed as an “adult resource”) for some Lepidoptera. Scott found Mourning Cloak at its flowers. Var. *exigua*. March – June.

Narrowleaf Willow is a larval foodplant for Western Tiger Swallowtail, Viceroy, and Mourning Cloak. Deutsch and Levinson find it preferred by the Mourning Cloak in the San Francisco Bay area.

Saturniidae: Polyphemus Moth (*Antheraea polyphemus*).

Sphingidae: White-lined Sphinx (*Hyles lineata*).

Salix gooddingii. **Goodding’s Black Willow**. Salicaceae. Nectar source. March – April.

Mourning Cloak seems quite likely (sometimes the plant classified as *S. nigra*, definitely a host for it) and likely others.

Salix laevigata. **Red Willow**. Salicaceae. December – June.

Salix lasiandra var. *caudata* was *Salix lucida* subsp. *caudata*. **Tail-leaf Willow**. Salicaceae. May – June.

Salix lasiandra var. *lasiandra* was *Salix lucida* subsp. *lasiandra*. **Pacific Willow. Shining Willow**. Salicaceae. Nectar: Sara Orangetip, Mourning Cloak, Brown Elfin, others. March – June.

Larval host for Mourning Cloak in Suisun Marsh “occasionally abundant” (Shapiro, 1974). Foodplant for Western Tiger Swallowtail.

Sphingidae: David Nunnallee found a late instar One-eyed Sphinx (“*Smerinthus cerisyi*”—likely *Smerinthus ophthalmica*) on it (NorWestLeps #3175).

Saltugilia caruifolia was *Gilia caruifolia*. **Caraway-leaved Gilia**. Polemoniaceae. Nectar. May - August.

Salvia apiana. **White Sage**. Lamiaceae. Nectar: Pale Swallowtail, Western Tiger Swallowtail, Chalcedon Checkerspot, Rural Skipper. April – August. The Grants (1964) noted much less insect activity on its flowers than on Black Sage (see). Anna’s Hummingbird visits it near Claremont with Costa Hummingbird reported from desert and drier habitats (Grants, 1964). April – August.

Marc Kummel photographed a Chalcedon Checkerspot (San Marcos Pass, 15 June 2015) at nectar with abdomen bending down – his comment “I assume it is just folded under. It “surely” couldn’t be ovipositing!” However, it might have been; *Trichostema lanatum* observed previously to support larvae (Emmel & Emmel, p. 33). Another photograph of his, 27 June 2017, shows a mature larva which seems to be Gray Hairstreak on White Sage flowers.

Noctuidae: *Abagrotis orbis* (includes “*Abagrotis barnesii*”).

Salvia carduacea. **Thistle Sage**. Lamiaceae. Theodore Payne Butterfly Mix. Elsewhere, Hartmut Wisch reports seeing a beautiful diurnal moth on it cf. *Schinia suetus* (Noctuidae), White-lined Sphinx. March – May.

Salvia columbariae. **Chia**. Lamiaceae. Nectar: Sara Orangetip, Painted Lady, Common Buckeye, Chalcedon Checkerspot, Gray Hairstreak, Acmon Blue. March – June.

Pyralidae: Salvia Snout Moth (*Pyrausta dapalis*); adults, found on flowers in the daytime, underwings mostly red.

Salvia greatae. **Orocopia Sage**. Lamiaceae. Calflora reports that butterflies and hummingbirds visit its flowers. March – April.

Salvia vaseyi (*Audibertia vaseyi*). **Vasey's Sage**. Lamiaceae. Calflora reports butterflies and hummingbirds visit its flowers. April – June.

Sarcobatus vermiculatus. **Greasewood**. Chenopodiaceae.

Listed as a larval host for California Tortoiseshell (HOSTS) and Northern White-Skipper is listed merely for “*Sarcobatus*” (HOSTS).

Sarcostemma cynanchoides ssp. *hartwegii* is now *Funastrum cynanchoides* ssp. *hartwegii*. **Climbing Milkweed**.

Sarcostemma hirtellum is now *Funastrum hirtellum*. **Smooth Milkvine. Trailing Townula**.

Scat. Many butterflies feed on fresh, moist mammal manure (feces) and bird dung. Some sap and scat feeders are less likely seen on flowers. Pipevine Swallowtail (especially fresh deer dung). Sleepy Orange (deer dung, manure piles). Viceroy [manure – Michigan], Pearl Crescent (deer dung, manure piles), Bordered Patch, Red Admiral, California Sister, California Tortoiseshell (coyote scat), Mourning Cloak (horse manure). Small Checkered-Skipper (bird droppings). These observations, as almost all in this work, merely samplings!

Many moths visit feces as well. Several *Acrolopus* species (Tineidae) are native to Imperial County; related eastern species are specialists in tortoise dung in burrows, a possibility here.

Scutellaria mexicana (*Salazaria mexicana*). **Mexican Bladder Sage**. Lamiaceae. Nectar: Black Swallowtail (fq). David Horner: They “go crazy” for the flowers. Gray Hairstreak. White-lined Sphinx. March – June.

Senecio spp. **Ragworts**. Asteraceae. Senecioneae.

Note: most hostplant records date to the time before the recent re-assignment of many former *Senecio* species to other genera, for California natives, namely *Packera*. Most if not all of the *Packera* seem to be good Lepidoptera nectar plants.

“*Senecio*” recorded among the hostplants for the polyphagus Painted Lady (HOSTS) and American Lady (HOSTS) and for these Imperial County moths:

Arctiidae: Salt Marsh Moth (*Estigmene acrea*) (HOSTS).

Noctuidae: Cabbage Looper (*Trichoplusia ni*) (HOSTS).

Pyralidae: Sunflower Moth (*Homoeosoma electella*) (HOSTS).

Senecio californicus. **California Ragwort**. Nectar: Elsewhere, Lompoc Blue (a segregate of Small Dotted-Blue). March – June.

Senecio flaccidus var. *douglasii*. **Butterweed. Creek Senecio. Threadleaf Groundsel**. Asteraceae. Senecioneae.

Note: sharing here many observations of variety *douglasii*. The one in Imperial County is *monoensis*, for which, specifically, I have few observations, but its value to Lepidoptera is likely much the same.

Nectar: Black Swallowtail. Checkered White, Orange Sulphur, Sleepy Orange, Dainty Sulphur. Monarch, Queen, Painted Lady, American Lady, West Coast Lady, Common Buckeye, Sagebrush Checkerspot, Leanira Checkerspot, California Patch. American Snout. Elsewhere, popular with metalmarks. Great Purple Hairstreak, Gray Hairstreak, Juniper Hairstreak, Western Pygmy-Blue, Marine Blue, Acmon Blue, Ceraunus Blue, Reakirt's Blue. Northern White-Skipper, Funereal Duskywing, White Checkered-Skipper, Fiery Skipper, Woodland Skipper (fq). White-lined Sphinx (*Hyles lineata*, Sphingidae), Alfalfa Semilooper (*Autographa californica*, Noctuidae). In Riverside and San Diego County it also gets the colorful diurnal *Lycomorpha regulus* (Arctiidae).

Paul Johnson photographed of many of these species working the flowers of Butterweed in Pinnacles National Monument, Marc Kummel similarly in Santa Barbara County. The Monroes record 13 species of butterflies at nectar on it in the Anza-Borrego area of San Diego County. Las Pilitas Nursery: "Great for butterflies." June – October.

Pyralidae: Sunflower Moth (*Homoeosoma electella*) (HOSTS).

Senecio flaccidus var. *Monoensis*. **Mono Groundsel. Mono Ragwort. Smooth Threadleaf Ragwort.** Asteraceae. Senecioneae. Nectar: California Patch, metalmarks. In Riverside and San Diego County it gets *Lycomorpha regulus* (Arctiidae) – a showy diurnal moth. September – November.

Senegalia greggii, formerly *Acacia greggii*. **Catclaw Acacia.** Fabaceae. Acacieae. Nectar: Black Swallowtail, Checkered White, Queen, Marine Blue, Ceraunus Blue, Reakirt's Blue, Palmer's Metalmark, Great Purple Hairstreak(fq), Leda Ministreak, Gray Hairstreak, Northern White-Skipper, Funereal Duskywing, and *Annaphila astrologa* (Noctuidae), a diurnal moth recorded for San Diego and Riverside County. Attracts mostly small butterflies. April - June.

Hostplant for Marine Blue, Reakirt's Blue, and Ceraunus Blue. It supports hemiparasitic Desert Mistletoe (*Phoradendron californicum*, Viscaceae), a Great Purple Hairstreak hostplant.

Noctuidae: *Melipotis novanda* (not recorded for Imperial County but found in adjacent Riverside County, California and in Yuma County, Arizona). Cruel Toxonprucha (*Toxonprucha crudelis*). *Toxonprucha repentis*. Bird Toxonprucha (*Toxonprucha volucris*).

Senna armata. **Desert Cassia.** Fabaceae. Cassieae. Nectar: Tiny Checkerspot. Bumblebees. March – July.

Serves as a larval host for the Sleepy Orange and Cloudless Sulphur. Also supports Gray Hairstreak.

Senna covesii. **Coues' Cassia.** Fabaceae. Cassieae. March – April (fall).

Foodplant for Cloudless Sulphur, Sleepy Orange. Favorite of Cloudless Sulphur (Firefly Forest web site). Among 'Most Recommended' by *Desert Butterfly Gardening*.

Sesbania herbacea. **Colorado River Hemp.** Fabaceae. Robinieae. April - October.

Hostplant for the Orange Sulphur and Funereal Duskywing.

Sesuvium verrucosum. **Western Sea-purslane**. Aizoaceae. Nectar: Gray Hairstreak and MacNeill's Sootywing (fq). April - November.

A foodplant for Western Pygmy-Blue (Butterflies of Arizona) as at Suisun Marsh in central California (Shapiro). Reported from Kings County in 1972 Season Summary.

Heliodinidae: *Aetole prenticei* (Powell & Opler, p. 111).

Setaria parviflora. **Marsh Bristlegrass**. Poaceae. Paniceae.

Eufala Skipper eats non-native Hooked Bristlegrass (*Setaria verticillata*), this perhaps a native hostplant.

Sibara deserti (*Arabis deserti*). **Desert Rock Cress**. Brassicaceae. March – April.

Simmondsia chinensis. **Jojoba**. Simmondsiaceae. May – June.

Geometridae: Fortunate *Idaea* (*Idaea bonifata*), possibly the smallest North American geometrid, found in stored seeds: Gentry, Howard Scott. 1958. "The Natural History of Jojoba (*Simmondsia chinensis*) and Its Cultural Aspects." *Economic Botany* 12 (3): 261-95. <http://www.jstor.org/stable/4287990>. Also, Powell & Opler, p. 222.

Saturniidae: Electra Buckmoth (*Hemileuca electra*).

Tortricidae: *Epinotia kasloana* (known from Riverside and San Diego County).

Solanum douglasii. **Douglas Nightshade**. Solanaceae. Flowers most of the year.

Sphingidae: Carolina Sphinx (*Manduca sexta*), confirmed on Natural History of Orange County web site.

Spergularia marina. **Salt Sand Spurry**. Caryophyllaceae. April – September.

Sphaeralcea spp. **Globemallows**. Malvaceae.

Many hostplant records are only to genus.

Noctuidae: *Bagisara buxea*.

Sphaeralcea ambigua. **Desert Mallow**. Malvaceae. Nectar: Western Pygmy-Blue, Northern White-Skipper, White Checkered-Skipper, Eufala Skipper, Orange Skipperling. February – July.

Hostplant for West Coast Lady (fq), Painted Lady, Gray Hairstreak, Northern White-Skipper, White Checkered-Skipper, and Small Checkered-Skipper. Varieties *ambigua* and *rosacea* consistent for Painted Lady, Inyo County 1991 migration event.

Noctuidae: Chalky Bird Dropping Moth (*Acontia cretata*, Jennifer Bundy). *Tarache major*.

Sesiidae: *Zenodoxus palmii* (known from Riverside and San Bernardino County).

Sphaeralcea ambigua var. *rosacea*. **Rosy Apricot Mallow**. Malvaceae. February – March.

Sphaeralcea ambigua var. *rugosa*. **Desert Globemallow**. Malvaceae. February – March.

Sphaeralcea angustifolia (*Phymosia cuspidata*). **Copper Globemallow**. Malvaceae. Nectar: Southern Dogface. Marine Blue. White Checkered-Skipper. March – October.

Foodplant for West Coast Lady, Gray Hairstreak, Northern White-Skipper, White Checkered-Skipper, Small Checkered-Skipper.

Considered worthy of cultivation.

Sphaeralcea coulteri. **Coulter's Globe Mallow**. Malvaceae. March – May.

Sphaeralcea emoryi. **Emory's Globemallow**. Malvaceae. February – July.

Sphaeralcea orcuttii. **Carizzo Creek Globemallow**. **Carizzo Mallow**. Malvaceae. February – September.

Sporobolus airoides. **Alkali Sacaton**. Poaceae. Zoysieae. July – August.

Bucculatricidae: only known foodplant for the Alkali Sacaton Moth (*Bucculatrix sporobolella*), a micromoth for which MPG provides no locations, nor is it recorded in the California Moth Database.

Sporobolus contractus. **Spike Dropseed**. Poaceae. Zoysieae. August – October.

Sporobolus cryptandrus. **Sand Dropseed**. Poaceae. Zoysieae. August – September.

Stemodia durantifolia. **White Woolly Stemodia**. Plantaginaceae. January – December.

Stephanomeria spp. Wire-lettuces. Asteraceae. Cichorieae.

Noctuidae: *Cucullia mcdunnoughi* -- "reared from *Stephanomeria*".

Stephanomeria exigua. Small Wire-lettuce. Asteraceae. Cichorieae. Nectar: Reakirt's Blue. April – July for var. *exigua* and as late as October – November for other varieties.

Noctuidae: *Cucullia eulepis* (known from Riverside and San Diego County). *Schinia scarletina*.

Stephanomeria pauciflora. **Desert Straw**. Asteraceae. Cichorieae. Nectar: Marine Blue. March – November.

Noctuidae: *Cucullia basipuncta*. *Schinia scarletina*.

Stillingia spp. **Toothleaf**. Euphorbiaceae.

Geometridae: Southern Emerald (*Synchlora frondaria*).

Stillingia linearifolia. **Queen's Root**. Euphorbiaceae. March – May.

Stillingia spinulosa. **Annual Toothleaf**. Euphorbiaceae. March – May.

Stipa spp. **Needlegrasses**. Poaceae. Pooideae. Stipeae.

Elsewhere, Needlegrasses are hostplants for Juba Skipper and other *Hesperia* skippers.

Stipa coronata was *Achnatherum coronatum*. **Crested Needle Grass**. Poaceae. April – June.

Stipa hymenoides was *Achnatherum hymenoides*. **Indian Rice Grass**. **Sand Rice Grass**. Poaceae. April – July.

Stipa parishii was *Achnatherum parishii*. **Parish's Needlegrass**. Poaceae. April – August.

Stipa speciosa was *Achnatherum speciosum*. **Desert Needle Grass**. April – July.

Streptanthella longistrostris. **Longbeak Twistflower**. Brassicaceae. March – June.

Foodplant for Desert Orangetip, Becker's White and Desert Marble (*Iotta*).

Streptanthus spp. **Jewelflower**. Brassicaceae.

Hostplants for California Marble, Spring White. Shapiro finds "tall species" favored hostplants for Gray Marble.

Streptanthus campestris. **Southern Jewelflower**. Brassicaceae. May – June.

A tall species, indeed, the "tallest I've ever seen" says Aaron Schuseff, a likely hostplant.

Suaeda nigra. **Bush Seepweed**. Chenopodiaceae. May – September.

Foodplant for the Western Pygmy Blue (fq) – supports so many larvae as to be 'a potentially significant threat to its seed production, at least locally' (Shapiro).

Gelechiidae: *Chionodes sistrella*.

Sweat. Some butterflies are attracted to imbibe sweat: California Sister (fq), Mourning Cloak, California Tortoiseshell, Pearl Crescent, various Checkerspot species, Acmon Blue.

Symphyotrichum spp. **Asters**. Asteraceae. Astereae.

Recorded for "Aster" and thus possible:

American Lady, Sagebrush Checkerspot, likely secondary for both.

Geometridae: *Synclora aerata* (found in Riverside and San Diego County).

Noctuidae: Olive-shaded Bird-dropping Moth (*Ponometia candefacta* -- known from neighboring counties and Baja California). Armyworm (*Mythimna unipuncta*). Beet Armyworm (*Spodoptera exigua*). Yellowstriped Armyworm (*Spodoptera ornithogalli*).

Pyralidae: Sunflower Moth (*Homoeosoma electella*).

Symphyotrichum chilense (*Aster chilensis*). **Pacific Aster**. Asteraceae. Astereae. Nectar: Orange Sulphur, Cabbage White. Monarch, Common Buckeye, American Lady, West Coast Lady, Painted Lady. Mormon Metalmark. Gray Hairstreak, Great Purple Hairstreak, Acmon Blue, Western Pygmy-Blue, Common Sootywing, Northern White-Skipper, White Checkered-Skipper (fq), Fiery Skipper (fq), Field Skipper (Sachem), Eufala Skipper, Sandhill Skipper, Woodland Skipper. An important butterfly nectar plant. June – October.

Symphyotrichum defoliatum (*Aster deserticola*). **San Bernardino Aster**. Asteraceae. Astereae. July – November.

Symphyotrichum subulatum (*Aster subulatus*). **Eastern Salt Marsh Aster**. Asteraceae. Astereae. Nectar: Orange Sulphur, Dainty Sulphur, Gulf Fritillary, Common Buckeye, Painted Lady, and Fiery Skipper. July – October.

Tauschia arguta. **Southern Umbrellawort**. Apiaceae. Selineae. Shapiro: "I have seen the flowers visited by Leanira Checkerspot (American River Canyon)." April - June.

Larval host for Indra Swallowtail and Black Swallowtail.

Arctiidae: Vestal Tiger Moth (*Spilosoma vestalis*) (known from neighboring counties).

Tetracoccus hallii (*Halliophytum fasciculatum*, *Halliophytum hallii*). **Hall's Shrubby Spurge. Hall's Purple Bush. Holly-leaved Spurge**. Picrodendraceae. January – May.

Teucrium cubense. **Small Coastal Germander**. Lamiaceae. March – May.

An annual with modest, scattered flowers; they have nectar guides.

Thamnosma montana. **Turpentine Broom**. Rutaceae. Nectar: Black Swallowtail. February-May.

Monroes and others: hostplant for Black Swallowtail.

Thysanocarpus curvipes. **Lacepod**. Brassicaceae. Fred Heath noticed a Desert Marble at nectar on this species in Arizona (12 Feb 2012), prompting him to consider it may possibly be a host plant. February – June.

Others observed oviposition by Desert Marble on a Lacepod on March 10, 2011 (SoWestLep #11040); seems almost certainly a hostplant for it. Foodplant for Sara Orangetip, Desert Orangetip, and Spring White.

In cultivation.

Thysanocarpus laciniatus. **Narrow-leaved Lacepod**. Brassicaceae. March – May.

Tidestromia suffruticosa. **Honeysweet**. Amaranthaceae. April – December. Have no observations of this species but likely nectar plant; for the related *Tidestromia lanuginosa* an Arizona observer, Anne Reeves took photographs showing Checkered White and Dainty Sulphur hanging out on flowering specimens, and apparently at nectar: Ceraunus Blue, Reakirt's Blue, Western Pygmy-Blue, White Checkered-Skipper and *Aetole unipunctella* (Heliodinidae).

Tiquilia canescens (*Coldenia canescens*). **Shrubby Coldenia. Woolly Crinklemat**. Boraginaceae. March – May.

Tiquilia nuttallii. **Nuttall's Coldenia. Nuttall's Crinklemat**. Boraginaceae. May – August.

Tiquilia palmeri. Palmer's Coldenia. Palmer's Crinklemat. Boraginaceae. March – June.

Tiquilia plicata (*Coldenia plicata*). Plicate Coldenia. Boraginaceae. March – July.

Depressariidae: *Pseudethmia protuberans*, strong association noted (Powell & Opler, p 70-71).

Trianthema portulacastrum. **Desert Horse-purslane**. Amaranthaceae. Nectar: Tropical Buckeye (a stray to the county). Flowers spring – fall.

Foodplant for the Western Pygmy-Blue (Wesley A. Maffei).

Trichoptilium incisum. **Yellowhead**. Yellowdome. Asteraceae. Helenieae. Nectar: 'Henne's' Chalcedon Checkerspot in the Anza-Borrego area (Monroes). January – May, October – December.

Tridens spp. Poaceae. Chlorideae.

Elsewhere hostplants for two *Hesperia* and one *Polites* skipper.

Tridens muticus. **Slim Tridens**. Poaceae. Chlorideae. April – May.

Trifolium spp. **Clovers**. Fabaceae. Trifolieae. Nectar: Orange Sulphur, Southern Dogface. American Lady, Common Buckeye, Chalcedon Checkerspot (to large clovers). Gray Hairstreak, Acmon Blue, Marine Blue. Common Sootywing, Sachem.

Unspecified clovers recorded as hostplants for Orange Sulphur, Clouded Sulphur, Southern Dogface, Acmon Blue. As with other plants, many native clovers are difficult to identify and little known; likely most serve many more Lepidoptera species than yet specifically recorded.

Arctiidae: Ornate Tiger Moth (*Apantesis ornata*) (found in neighboring counties).

Noctuidae: Nutmeg (*Anarta trifolii*). Pearly Underwing or Variegated Cutworm (*Peridroma saucia*). Gray Looper (*Rachiplusia ou*). V-lined Quaker (*Zosteropoda hirtipes*) (found in neighboring counties and Baja California).

Tortricidae: Omnivorous Leafroller (*Platynota stultana*).

Trifolium willdenovii. **Tomcat Clover**. Fabaceae. Trifolieae. Nectar: Orange Sulphur. March – June.

Hostplant for Orange Sulphur, Acmon Blue, and Gray Hairstreak.

In cultivation.

Trifolium wormskioldii. **Springbank Clover**. Fabaceae. Trifolieae. May-October.

Foodplant for Orange Sulphur.

Tortricidae: *Grapholita conversana* (neighboring counties).

In cultivation.

Trixis californica var. *californica*. **Trixis** or **American Threefold**. Asteraceae. Nassauvieae. Nectar: Northern White-Skipper (Monroes). January – May, July – August.

Typha domingensis (*Typha angustata*). **Narrowleaf Cattail**. **Southern Cattail**. Typhaceae. March – August.

Uropappus lindleyi (*Microseris lindleyi*). **Silver Puffs**. Asteraceae. March – May.

Verbena bracteata. **Creeping Vervain**. Verbenaceae. Nectar: Dainty Sulphur, Checkered White, Gray Hairstreak, Reakirt's Blue, White Checkered-Skipper, Small Checkered-Skipper. May – October.

Veronica peregrina subsp. *xalapensis* (*Veronica sherwoodii*, *Veronica xalapensis*). **Hairy Purslane Speedwell**. **Neckweed**. Plantaginaceae. March – July.

Vulpia octoflora. **Tufted Fescue**. Poaceae. Poaeae.

Washingtonia filifera. **California Fan Palm**. Arecaceae.

Noctuidae: Palm Budworm (*Litoprosopus coachella*). The moth, also known as the Palm Flower Moth, is a light tan or pale grey species with eyespots on the inner edges of the hind wings. The larvae are food for Gila Woodpecker and Northern Mockingbird.

Xanthium strumarium. **Cocklebur**. Asteraceae. Heliantheae. Ambrosiinae.

Hostplant for Bordered Patch and Painted Lady. Usually secondary for Bordered Patch, moving to it after stripping nearby Sunflower (*Helianthus annuus*, the preferred host) (Gorodenski).

Noctuidae: Subterranean Dart (*Feltia subterranea*). Corn Earworm (*Helicoverpa zea*). Variegated Cutworm (*Peridroma saucia*). Fall Armyworm (*Spodoptera frugiperda*).

Tortricidae: Stem-galling Moth (*Epiblema strenuana*) (neighboring counties), bores into stems.

Xylorhiza spp. Asteraceae. Astereae. Good butterfly nectar plants – Growing Native.

Xylorhiza cognata. **Mecca-aster**. Asteraceae. Astereae. January – July.

Noctuidae: *Schinia jaegeri*.

Xylorhiza orcuttii. **Orcutt's Woody Aster**. Asteraceae. Astereae. Nectar: Western Pygmy-Blue, Sagebrush Checkerspot (Monroes). January – May.

Hostplant for Sagebrush Checkerspot (*Chlosyne acastus neumogeni*) (Monroes, Austins).

Noctuidae: *Schinia jaegeri*.

Xylorhiza tortifolia. **Mojave Aster**. Asteraceae. Astereae. Nectar: Orange Sulphur. Acmon Blue. Online photograph shows a largish moth asleep in them. March – June, October.

Foodplant for Neumogen's Sagebrush Checkerspot.

Noctuidae: Intermediate Cucullia (*Cucullia intermedia*) (known from San Diego and Yuma County). *Schinia ligeae*.

Yabea microcarpa was *Caucalis microcarpa*. **California Hedge Parsley**. Apiaceae. Scandiceae. April – June.

Yucca schidigera. **Mojave Yucca**. Agavaceae. April-May.

Larval host Yucca Giant-Skipper (Heath), which likely occurs in the county.

Prodoxidae: *Prodoxus californicus* (known from neighboring counties). *Prodoxus coloradensis* (known from neighboring counties). *Tegeticula mojavella*.

Tortricidae: *Nycthia pimana* (*Phalonia pimana*) now *Cochylina* 3853, known from neighboring counties.

Zannicheillia palustris (*Zannicheillia major*). **Horned Pondweed**. Zannichelliaceae. March – November.

Zeltnera venusta was *Centaurium venustum*. **Canchalagua**. Gentianaceae. Nectar: Acmon Blue. May - August.

Pterophoridae: *Stenoptilia zophodactylus*, a cosmopolitan plume moth known from neighboring counties, specializes in Gentian family plants.

Best in Zones 7-11, 14-24. Beautiful annual.

Ziziphus obtusifolia. **Lotebush**. April – June.

Ziziphus obtusifolia var. *canescens*. **Gray Crucillo**. **Lotebush**. **Gray Leaved Abojo**. **Graythorn**.
Rhamnaceae. April-June.

Notodontidae: *Cargida pyrrha* – a moth not yet recorded for California, but known in the central southern Arizona range of the plant.

Ziziphus parryi var. *parryi*. **California Crucillo**. **Parry Abojo**. **Lotebush**. Rhamnaceae. February – April.

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