

Bridge at the start of the trail at Pebble Beach.

The Coastside State Parks Association (CSPA), a 501 3(c) nonprofit that raises funds for state parks on the San Mateo County coast, supported the publication of this pamphlet.

CSPA's mission is to inspire public appreciation and stewardship of the natural resources and cultural heritage of the San Mateo coast in partnership with California State Parks.

Donations to CSPA contributed to the improvement of the Bean Hollow Trail and the installation of interpretive signs along the trail.

For more information about CSPA and its programs see www.coastsidestateparks.org and follow CSPA on Facebook www.facebook.com/CoastsideStateParks.





## **Bean Hollow Trail**

## **Pebble Beach to Bean Hollow** May 2015







CHECKER LILY (Fritillaria affinis var. affinis)



WESTERN DOG VIOLET (Viola adunca)



**CSPA Map of State Parks on the San Mateo Coast** 

**RUBIACEAE - Madder Family** 

Galium aparine GOOSE GRASS

Galium porrigens var. porrigens CLIMBING BEDSTRAW

Sherardia arvensis FIELD MADDER\*

**RUSCACEAE - Ruscus Family (Liliaceae)** 

Maianthemum stellatum (Smilacina stellata) SLIM SOLOMON'S SEAL

**SALICACEAE - Willow Family** 

Salix lasiolepis ARROYO WILLOW

SCROPHULARIACEAE - Figwort Family see also Phrymaceae

Scrophularia californica California Figwort/Bee Plant

**SOLANACEAE - Nightshade Family** 

Solanum americanum SMALL-FLOWERED NIGHTSHADE

THEMIDACEAE - Cluster Lily Family (Liliaceae)

Brodiaea elegans ssp. elegans
Brodiaea terrestris ssp. terrestris
Triteleia laxa

ELEGANT BRODIAEA

DWARF BRODIAEA

ITHURIEL'S SPEAR

**URTICACEAE - Nettle Family** 

Urtica dioica ssp. gracilis AMERICAN STINGING NETTLE

Urtica dioica ssp. holosericea HOARY NETTLE

**VIOLACEAE - Violet Family** 

Viola adunca ssp. adunca WESTERN DOG VIOLET

**ZOSTERACEAE - Eel-grass Family** 

Phyllospadix scouleri Scouleri Scouleri

#### **POACEAE – Grass Family continued**

Distichlis spicataSALTGRASSFestuca arundinaceaTALL FESCUE\*Festuca bromoides (Vulpia bromoides)BROME FESCUE\*

Holcus lanatus COMMON VELVET GRASS\*

Hordeum brachyantherum ssp. brachyantherum MEADOW BARLEY
Hordeum murinum ssp. leporinum FARMER'S FOXTAIL\*

Phalaris californica CALIFORNIA CANARY GRASS

Phalaris species CANARY GRASS

Poa douglasiiSAND DUNE BLUEGRASSPoa unilateralis ssp. unilateralisOCEAN-BLUFF BLUEGRASSPolypogon interruptusDITCH BEARD GRASS\*Polypogon monspeliensisANNUAL BEARD GRASS\*Stipa lepida (Nassella lepida)FOOTHILL NEEDLEGRASSStipa pulchra (Nassella pulchra)PURPLE NEEDLEGRASS

**POLEMONIACEAE - Phlox Family** 

Navarretia species NAVARRETIA

**POLYGONACEAE - Buckwheat Family** 

Chorizanthe robusta ROBUST SPINEFLOWER Eriogonum latifolium COAST BUCKWHEAT Persicaria punctata (Polygonum punctatum) WATER SMARTWEED Polygonum paronychia DUNE KNOTWEED Pterostegia drymarioides PTEROSTEGIA Rumex acetosella SHEEP SORREL\* Rumex conglomeratus GREEN DOCK\* Rumex crassus (R. salicifolius var. crassus) WILLOW DOCK

Rumex crispus CURLY DOCK\*
Rumex fueginus (R. maritimes) GOLDEN DOCK

Rumex occidentalis WESTERN DOCK

**RANUNCULACEAE - Buttercup Family** 

Ranunculus californicus California Buttercup

CALIFORNIA COFFEEBERRY

**RHAMNACEAE - Buckthorn Family** 

Ceanothus thyrsiflorus var. thyrsiflorus BLUE BLOSSOM

Frangula californica ssp. californica (Rhamnus c. ssp. c.)

ROSACEAE - Rose Family

Acaena pinnatifida var. californica CALIFORNIA ACAENA

Drymocallis glandulosa var. glandulosa
(Potentilla g. ssp. g.)

Fragaria chiloensis

BEACH STRAWBERRY

Horkelia californica var. californica CALIFORNICA HORKELIA

Oemleria cerasiformis OSO BERRY

Potentilla anserina ssp. pacifica PACIFIC SILVERWEED
Rubus ursinus CALIFORNIA BLACKBERRY

# **Bean Hollow Trail**

## **Pebble Beach to Bean Hollow**

## A guide to the Bean Hollow State Beach Trail

Compiled by

by

Avis Boutell and Toni Corelli for the

Coastside State Parks
Association (CSPA)

www.CoastsideStateParks.org

May 2015

This pamphlet was originally compiled for a guided walk for members of the Coastside State Parks Association (CSPA), a 501 3(c) nonprofit that raises funds for state parks on the San Mateo County coast.

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#### Other Resources

A previous CSPA publication, the book *Plants and Plant Communities of the San Mateo Coast*, by Avis Boutell, Toni Corelli, and Nancy Frost provides more information about local plants, including, photographs of over 100 of the most common plants found along the San Mateo coast, a list of all the plants, and descriptions of the plant communities in which they are found. It can be purchased at local state park stores and proceeds from its sale are used by CSPA to support the parks.

For more plant photographs:

www.flickr.com/photos/aboutell/ www.flickr.com/photos/tcorelli/

More information about CSPA and the coastside state parks can be found at www. CoastsideStateParks.org.

**ORCHIDACEAE - Orchid Family** 

Piperia elegans ssp. elegansELEGANT PIPERIASpiranthes romanzoffianaLADIES' TRESSES

**OROBANCHACEAE - Broom-Rape Family (Scrophulariaceae)** 

Bellardia trixago BELLARDIA\*
Castilleja ambigua ssp. ambigua
Castilleja densiflora ssp. densiflora
OWL'S CLOVER

Castilleja wightii WIGHT'S PAINTBRUSH
Orobanche californica ssp. californica CALIFORNIA BROOM-RAPE
Orobanche fasciculata CLUSTERED BROOM-RAPE
Triphysaria pusilla DWARF ORTHOCARPUS

Triphysaria versicolor ssp. versicolor YELLOWBEAK OWL'S-CLOVER

**OXALIDACEAE - Oxalis Family** 

Oxalis pes-caprae BERMUDA BUTTERCUP\*
Oxalis pilosa (O. albicans ssp. pilosa) HAIRY WOOD-SORREL

**PAPAVERACEAE - Poppy Family** 

Eschscholzia californica California POPPY

PHRYMACEAE - Lopseed Family (Scrophulariaceae)

Mimulus aurantiacus var. aurantiacus STICKY MONKEYFLOWER
Mimulus guttatus LARGE MONKEYFLOWER

**PLANTAGINACEAE - Plantain Family** 

Plantago coronopus
Plantago elongata
ANNUAL COAST PLANTAIN\*
Plantago erecta
CALIFORNIA PLANTAIN
Plantago lanceolata
Plantago maritima
Plantago subnuda
CUT-LEAVED PLANTAIN\*
ANNUAL COAST PLANTAIN
ENGLISH PLANTAIN
Plantago subnuda
MEXICAN PLANTAIN

**PLUMBAGINACEAE - Leadwort Family** 

Armeria maritima ssp. californica SEA-PINK

**POACEAE - Grass Family** 

Agrostis densifloraCALIFORNIA BENT GRASSAgrostis exarataWESTERN BENT GRASSAvena barbataSLENDER WILD OAT\*Brachypodium distachyonPURPLE FALSE BROME\*Briza maximaBIG QUAKING GRASS\*Briza minorLITTLE QUAKING GRASS\*

Bromus diandrus RIPGUT GRASS\*

Bromus maritimus

(B. carinatus var. maritimus) CALIFORNIA MARITIME BROME

Cortaderia jubata JUBATA GRASS\*
Cortaderia selloana PAMPAS GRASS\*

Cynosurus echinatus HEDGEHOG DOGTAIL GRASS\*

Danthonia californica CALIFORNIA WILD OATGRASS

Deschampsia cespitosa ssp. holciformis CALIFORNIA HAIRGRASS

**GERANIACEAE - Geranium Family** 

Erodium botrysLONG-BEAKED FILAREE\*Erodium cicutariumRED-STEMMED STORKSBILL\*Geranium dissectumCUT-LEAVED GERANIUM\*

**IRIDACEAE - Iris Family** 

Iris douglasianaDOUGLAS' IRISSisyrinchium bellumBLUE-EYED-GRASSSisyrinchium californicumGOLDEN-EYED-GRASS

JUNCACEAE - Rush Family

Juncus capitatus LEAFYBRACT DWARF RUSH\*

Juncus hesperius (J. effusus var. brunneus)COMMON RUSHJuncus patensSPREADING RUSHJuncus phaeocephalus var. phaeocephalusBROWN-HEADED RUSHLuzula comosaCOMMON WOOD RUSH

**LAMIACEAE – Mint Family** 

Clinopodium douglasii (Satureja d.) YERBA BUENA

Monardella villosa ssp. franciscanaFRANCISCAN COYOTE-MINTStachys ajugoides (S. ajugoides var. ajugoides)BUGLE HEDGE NETTLEStachys bullataCALIFORNIA HEDGE NETTLE

LILIACEAE - Lily Family see also Agapanthaceae, Agavaceae, Alliaceae,

Asphodelaceae, Ruscaceae, Themidaceae

Fritillaria affinis CHECKER LILY

**LYTHRACEAE - Loosestrife Family** 

Lythrum hyssopifolia GRASS-POLY\*

**MALVACEAE - Mallow Family** 

Sidalcea malviflora ssp. malviflora CHECKER MALLOW

**MONTIACEAE - Montia Family (Portulacaceae)** 

Calandrinia ciliataRED MAIDSClaytonia exigua ssp. exiguaCOMMON MONTIAClaytonia perfoliata ssp. perfoliataMINER'S LETTUCE

**MYRICACEAE - Wax Myrtle Family** 

Morella californica (Myrica c.) WAX MYRTLE

**MYRSINACEAE - Myrsine Family (Primulaceae)** 

Anagallis arvensis SCARLET PIMPERNEL\*

**MYRTACEAE - Myrtle Family** 

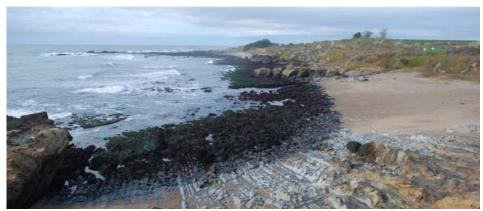
Leptospermum laevigatum AUSTRALIAN TEA TREE\*

**ONAGRACEAE - Evening Primrose Family** 

Camissoniopsis cheiranthifolia ssp. cheiranthifolia

(Camissonia c.)BEACH PRIMROSEClarkia davyiDAVY'S FAIRYFANEpilobium ciliatum ssp. ciliatumCOMMON WILLOW HERBEpilobium ciliatum ssp. watsoniiWATSON'S WILLOW HERBOenothera elata ssp. hookeriHOOKER'S EVENING PRIMROSE

Taraxia ovata (Camissonia ovata) SUN CUP



Pebble Beach

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White
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Bean Hollow State Beach

## **Bean Hollow Trail Pebble Beach to Bean Hollow** Introduction

The Bean Hollow Trail winds for a mile on a bluff above the ocean from Pebble Beach in the north to Bean Hollow Beach in the south, at the mouth of the creek Arroyo de los Frijoles.

#### **Plants**

The most extensive plant community along the trail is coastal bluff scrub, characterized by low-growing vegetation, primarily herbaceous perennials, but also annual wildflowers and low-growing woody shrubs. Interspersed among the scrub are patches of coastal prairie, dominated by grasses and wildflowers, without any woody plants.

A large portion of the coastal scrub and prairie along our coast has been lost to agriculture or development. This bluff is unusual because it has never been farmed and so still has a large diversity of native plants, some—like the three pictured on the cover—rarely found locally along the coast. Walking the trail, you can get a remarkable view of what this coast might have looked like more than 200 years ago.

## **History**

This landscape was an important resource for Native Americans, who harvested the small seeds of plants like tarweed as a major source for food. They managed the landscape through the application of fire to increase seed production and encourage the growth of grasses that would attract game.

Much changed with the arrival of Europeans. The first Europeans to reach Bean Hollow were the members of the Spanish Portola expedition in 1769. Over the next few decades, with the establishment of missions in San Francisco and Santa Cruz, the land along the coast was used for grazing cattle and the landscape changed, both from the grazing and from the introduction of exotic plants

#### **CRASSULACEAE - Stonecrop Family**

Crassula connata SAND PYGMY-WEED Dudleya farinosa LIVE FOREVER

### **CUCURBITACEAE - Gourd Family**

Marah fabaceus CALIFORNIA MAN-ROOT

## **CYPERACEAE - Sedge Family**

Carex brevicaulis SHORTSTEM SEDGE Carex densa DENSE SEDGE Carex harfordii HARFORD'S SEDGE Carex obnupta SLOUGH SEDGE

Carex subbracteata SMALL-BRACTED SEDGE

Cyperus eragrostis TALL CYPERUS Isolepis carinata (Scirpus koilolepis) KEELED CLUB RUSH Isolepis cernua (Scirpus cernuus) LOW CLUBRUSH Schoenoplectus americanus (Scirpus a.) THREESQUARE

Scirpus microcarpus SMALL-FRUITED BULRUSH

#### **EUPHORBIACEAE - Spurge Family**

Euphorbia peplus PETTY SPURGE\*

### **FABACEAE - Legume, Pea Family**

Acmispon wrangelianus (Lotus w.) CHILE TREFOIL Astragalus nuttallii var. virgatus NUTTALL'S MILKVETCH Hosackia gracilis (Lotus formosissimus) HARLEQUIN LOTUS Lathyrus vestitus var. vestitus COMMON PACIFIC PEA Lotus corniculatus BIRDFOOT TREFOIL\* Lupinus arboreus YELLOW BUSH LUPINE

Lupinus nanus SKY LUPINE

Lupinus variicolor LINDLEY'S VARIED LUPINE Medicago polymorpha CALIFORNIA BURCLOVER\* Melilotus indicus INDIAN MELILOT\*

Trifolium dubium LITTLE HOP CLOVER\* *Trifolium fragiferum* STRAWBERRY CLOVER\* Trifolium fucatum SOUR CLOVER

*Trifolium grayi (T. barbigerum* var. *andrewsii)* 

ANDREWS' CLOVER Trifolium macraei MACRAE'S CLOVER Trifolium microcephalum SMALL-HEADED CLOVER

Trifolium repens WHITE CLOVER\*

Trifolium subterraneum SUBTERRANEAN CLOVER\* Trifolium variegatum WHITE-TIPPED CLOVER

Trifolium wormskioldii COW CLOVER Vicia americana ssp. americana AMERICAN VETCH Vicia gigantea GIANT VETCH Vicia sativa SPRING VETCH\*

## **GENTIANACEAE - Gentian Family**

Zeltnera davyi (Centaurium d.) DAVY'S CENTAURY **ASTERACEAE - Sunflower Family continued** 

Madia sativa Matricaria discoidea (Chamomilla suaveolens)

Microseris bigelovii

Pseudognaphalium luteoalbum (Gnaphalium l.)

Pseudognaphalium stramineum (Gnaphalium s.)

Senecio minimus (Erechtites minima)

Senecio vulgaris

Solidago elongata (S. canadensis ssp. elongata)

Solidago spathulata

Solidago velutina ssp. californica (S. californica)

Soliva sessilis

Sonchus asper ssp. asper

Sonchus oleraceus

Symphyotrichum chilense (Aster chilensis)

Wyethia angustifolia

BORAGINACEAE - Borage Family (Hydrophyllaceae)

Amsinckia intermedia (A. menziesii var. intermedia) COMMON FIDDLENECK

Heliotropium curassavicum var. oculatum Heliotropium europaeum

Phacelia malvifolia

**BRASSICACEAE - Mustard Family** 

Barbarea orthoceras

Brassica nigra Brassica rapa

Cakile maritima

Cardamine oligosperma

Hirschfeldia incana

Lepidium didymium (Coronopus didymus) Nasturtium officinale (Rorippa nasturtium-aquaticum) WATER CRESS

Raphanus sativus

**CAPRIFOLIACEAE - Honeysuckle Family** 

Lonicera hispidula

Lonicera involucrata var. ledebourii **CARYOPHYLLACEAE - Pink Family** 

Cerastium glomeratum

Silene gallica

Spergula arvensis

Spergularia macrotheca var. macrotheca

Stellaria media

**CHENOPODIACEAE - Goosefoot Family** 

Atriplex leucophylla

Atriplex prostrata (Atriplex triangularis)

Chenopodium californicum

COAST TARWEED

PINEAPPLE WEED\*

**BIGELOW'S MICROSERIS** 

WEEDY CUDWEED\* COTTON-BATTING PLANT

TOOTHED COAST FIREWEED\*

COMMON GROUNDSEL\*

MEADOW GOLDENROD DUNE/COAST GOLDENROD

CALIFORNIA GOLDENROD

COMMON SOLIVA\*

PRICKLY SOW THISTLE\*

COMMON SOW THISTLE\* COMMON CALIFORNIA ASTER

NARROW-LEAVED MULE EARS

SEASIDE HELIOTROPE

HELIOTROPE\*

STINGING PHACELIA

AMERICAN WINTER CRESS

BLACK MUSTARD\*

FIELD MUSTARD\*

**EUROPEAN SEA ROCKET\*** FEW-SEEDED BITTER CRESS

MEDITERRANEAN MUSTARD\*

LESSER WART CRESS\*

WILD RADISH\*

HAIRY HONEYSUCKLE

**TWINBERRY** 

MOUSE-EAR CHICKWEED\*

WINDMILL PINK\*

STICKWORT/STARWORT\*

LARGE-FLOWERED SAND-

**SPURREY** 

COMMON CHICKWEED\*

BEACH SALTBUSH **SPEARSCALE** 

CALIFORNIA GOOSEFOOT

from Europe—common weeds such as wild radish, mustard, wild oats, and bur clover.

Bean Hollow Beach and Arroyo de Los Frijoles, marked the southern extent of Rancho Butano, which was granted in 1838 to Ramona Sanchez. The rancho was purchased by Clark & Coburn of San Francisco in 1862.

Loren Coburn was born in Vermont and moved to California in 1851. He worked first in mining and then as a businessman in San Francisco. He moved to the Pescadero area in 1872 and entered into land development.

In the late 1800s, Pebble Beach was a popular attraction for local residents and visitors, who enjoyed collecting colorful pebbles from the beach. In the mid 1870s, Coburn closed the only road to the beach, which went through his property, infuriating his neighbors by cutting off their access to the beach.

Protests, physical confrontations, and court battles



Pebble Beach **Pebbles** 

followed. In 1893, the California legislature declared the beach should be "public grounds" in trust to San Mateo County for public use. A court case in 1896 affirmed that the beach up to the high tide mark should be open to the public, but that Coburn had the right to close his road to the public.

Coburn erected a large hotel on the bluff above Pebble Beach in the 1890s, hoping to make it a popular destination for vacationers taking

> The Coburn Hotel. in a painting by Galen Wolf



the planned Ocean Shore Railroad from San Francisco. The San Francisco earthquake in 1906 ended construction on the railroad. The railroad never reached Pebble Beach and the empty hotel became known as "Coburn's folly." It was eventually torn down and its foundation destroyed by the construction of Highway 1 in 1940.

## Geology

The bluff above the beach is a 100,000-year-old marine terrace—once at the bottom of the ocean, but uncovered as tectonic forces raised the coast. Beneath the terrace on the beach are rocks of the Pigeon Point Formation, an 80-million-year-old formation exposed along the coast for about 10 miles between Pescadero Point and Año Nuevo.

The Pigeon Point Formation is thought to have been formed by deposits in a huge deep-sea fan off the continental shelf. Geological

studies posit that it was formed at least 300 miles south of here and then moved north through the action of the San Andreas and San Gregorio faults. Some studies place its original formation even farther to the south. The forces moving the rocks also folded and broke them, so that the layers once laid down on the ocean floor now can be seen tilted at angles on the shore.



### **APIACEAE - Carrot Family continued**

Foeniculum vulgare FENNEL\* Heracleum maximum (Heracleum lanatum) COW PARSNIP

Oenanthe sarmentosa PACIFIC OENANTHE Sanicula arctopoides FOOTSTEPS OF SPRING Sanicula crassicaulis PACIFIC SANICLE Scandix pecten-veneris VENUS' NEEDLE\*

#### **APOCYNACEAE - Dogbane Family**

Vinca major GREATER PERIWINKLE\*

#### ARACEAE - Arum Family (some Lemnaceae)

Lemna minor SMALLER DUCKWEED

Zantedeschia aethiopica CALLA LILY\*

## **ASPHODELACEAE - Aloe Family (Liliaceae)**

Aloe arborescens CANDELABRA ALOE\*

## **ASTERACEAE - Sunflower Family**

Achillea millefolium YARROW Ambrosia chamissonis BEACH-BUR

Anaphalis margaritacea PEARLY EVERLASTING Artemisia californica CALIFORNIA SAGEBRUSH

Artemisia douglasiana MUGWORT

Artemisia pycnocephala COASTAL SAGEWORT Baccharis glutinosa (B. douglasii) MARSH BACCHARIS Baccharis pilularis ssp. consanguinea (B. pilularis) COYOTE BRUSH

Baccharis pilularis ssp. pilularis (B. pilularis) PROSTRATE COYOTE BRUSH

Centaurea melitensis TOCALOTE\* Cirsium brevistylum INDIAN THISTLE Cirsium quercetorum BROWNIE THISTLE Cirsium vulgare **BULL THISTLE\*** Cotula coronopifolia **BRASS-BUTTONS\*** Deinandra corymbosa (Hemizonia c. ssp. c.) COAST TARWEED Delairea odorata (Senecio mikanioides) CAPE/GERMAN-IVY\*

Erigeron canadensis (Conyza canadensis) HORSEWEED Erigeron glaucus SEASIDE DAISY Eriophyllum staechadifolium LIZARD TAIL

Euthamia occidentalis WESTERN GOLDENROD Gamochaeta ustulata (Gnaphalium purpureum) PURPLE CUDWEED

Grindelia camporum GREAT VALLEY GUMPLANT

Grindelia stricta var. platyphylla COASTAL GUMPLANT

Helenium puberulum **SNEEZEWEED** 

Helminthotheca echioides (Picris echioides) **BRISTLY OX-TONGUE\*** ROUGH CAT'S-EAR\* Hypochaeris radicata Jaumea carnosa MARSH/FLESHY JAUMEA Lasthenia californica ssp. californica CALIFORNIA GOLDFIELDS

Lasthenia californica ssp. macrantha (L. macrantha) PERENNIAL GOLDFIELDS Lasthenia minor WOOLLY GOLDFIELDS

## **Complete List of Plants along Bean Hollow Trail**

Organized by Division and then Family

Scientific names are taken from *The Jepson Manual: Vascular Plants of California*, 2<sup>nd</sup> edition (2012). \* Indicates the plant is-native. \*\* Indicates the plant is native to California but planted or naturalized here. Names in parentheses () are the names used in the 1<sup>st</sup> edition of the *Jepson Manual* (1993).

#### FERNS AND FERN ALLIES

**DENNSTAEDTIACEAE - Bracken Family** 

Pteridium aquilinum var. pubescens BRACKEN FERN

**DRYOPTERIDACEAE** - Wood Fern Family

Dryopteris arguta COASTAL WOOD FERN
Polystichum munitum WESTERN SWORD FERN

**EQUISETACEAE - Horsetail Family** 

Equisetum species HORSETAIL

POLYPODIACEAE - Polypody Family

Polypodium californicumCALIFORNIA POLYPODYPolypodium scouleriLEATHER-LEAF FERN

#### GYMNOSPERMS - CONE-BEARING PLANTS

**CUPRESSACEAE - Cypress Family** 

Hesperocyparis macrocarpa (Cupressus m.)

MONTEREY CYPRESS\*\*

PINACEAE - Pine Family

Pinus radiata Monterey pine\*\*

#### ANGIOSPERMS – SEED PLANTS

**AGAPANTHACEAE - Agapanthus Family (Liliaceae)** 

Agapanthus africanus LILY OF THE NILE\*

AGAVACEAE - Agave Family (Liliaceae)

Chlorogalum pomeridianum SOAP PLANT

**AIZOACEAE - Fig-Marigold Family** 

Carpobrotus chilensis SEA FIG\*
Carpobrotus edulis ICE PLANT\*

Tetragonia tetragonioides New Zealand spinach\*

**ALLIACEAE - Onion Family (Liliaceae)** 

Allium dichlamydeum COAST ONION

Allium triquetrum THREE-SQUARE ONION\*

**ANACARDIACEAE - Sumac, Cashew Family** 

Toxicodendron diversilobum WESTERN POISON OAK

**APIACEAE - Carrot Family** 

Angelica hendersoniiCOAST ANGELICAAnthriscus caucalisBUR-CHERVIL\*Conium maculatumPOISON HEMLOCK\*Daucus pusillusRATTLESNAKE WEEDEryngium armatumCOYOTE THISTLE

The surface of many of the rocks on the beach has been weathered in a honeycomb-like surface—known as tafoni. One of the many interpretive signs along the trail, donated by CSPA, explains the that tafoni are created by the interaction of salt spray and wind on the rock in a process called "cavernous weathering."





## **Harbor Seals**

Scan off shore from the trail and you can almost always find harbor seals in the water or hauled out on the rocks.



## **Identifying Common Bean Hollow Flowers**

Approximately 250 species of plants have been identified along Bean Hollow Trail. Two-thirds of them are native plants.

The photographs on the following pages will help you identify nearly 40 of the most common native plants along the trail that flower in the summer.

The photographs are organized by flower color—white, yellow to orange, pink to red, and blue to purple—but flowers don't always fall neatly into color categories and many are too variable to belong in only one category. Flowers that might be described as lavender, for example, may be found under either red or blue, so look in both places.

Some flowers, such as Wight's Paintbrush (*Castilleja wightii*) come in a wide range of colors—from cream to red—so scan other colors if you don't find what you are looking for.









WIGHT'S PAINTBRUSH

Each species is identified by its common name, scientific name, and, in parentheses, the plant family to which it belongs. Common names may vary.

The scientific names identifying the plants and their families are those used in the 2<sup>nd</sup> edition of *The Jepson Manual: Vascular Plants of California* (2012) available on line at http://ucjeps.berkeley.edu/jepsonmanual/review/index.html.



WILLOW HERB, WATSON'S Epilobium ciliatum ssp. watsonii (Onagraceae)

## **Blue to Purple Flowers**



ASTER, COMMON CALIFORNIA Symphyotrichum chilense (Asteraceae)



COYOTE-MINT, FRANCISCAN

Monardella villosa ssp. franciscana (Lamiaceae)



ITHURIEL'S SPEAR *Triteleia laxa* (Themidaceae)



BLUE-EYED GRASS
Sisvrinchium bellum (Iridaceae)



IRIS, DOUGLAS' *Iris douglasiana* (Iridaceae)



LUPINE, LINDLEY'S VARIED Lupinus variicolor (Fabaceae)

## **Pink to Red Flowers**



BEE PLANT, CALIFORNIA Scrophularia californica (Scrophulariaceae)



Zeltnera davyi (Gentianaceae)



CENTAURY, DAVY'S



**COTTON-BATTING PLANT** 

Pseudognaphalium stramineum (Asteraceae)

ANGELICA, COAST

**White Flowers** 



**BUCKWHEAT, COAST** Eriogonum latifolium (Polygonaceae)



**ELEGANT PIPERIA** 



KNOTWEED, DUNE Polygonum paronychia (Polygonaceae)



PACIFIC OENANTHE Oenanthe sarmentosa (Apiaceae)

**CHECKERBLOOM** Sidalcea malviflora ssp. malviflora (Malvaceae)



HEDGE NETTLE, CALIFORNIA Stachys bullata (Lamiaceae)



SEA PINK Armeria maritima ssp. californica (Plumbaginaceae)



HARLEQUIN LOTUS Hosackia gracilis (Fabaceae)



JOHNNY-NIP

LADIES' TRESSES Spiranthes romanzoffiana (Orchidaceae)



SEASIDE DAISY Erigeron glaucus (Asteraceae)





SOAP PLANT
Chlorogalum pomeridianum (Agavaceae)



STRAWBERRY, BEACH Fragaria chiloensis (Rosaceae)



LIVE FOREVER

Dudleya farinose (Crassulaceae)



Eriophyllum staechadifolium (Asteraceae)



WATER CRESS

Rorippa nasturtium-aquaticum (Brassicaceae)



YARROW Achillea millefolium (Asteraceae)



LUPINE, YELLOW BUSH Lupinus arboreus (Fabaceae)



PAINTBRUSH, WIGHT'S Castilleja wightii (Orobanchaceae)

## **Yellow to Orange Flowers**



EVENING PRIMROSE, HOOKER'S *Oenothera elata* ssp. *hookeri* (Onagraceae)



GOLDENROD, COAST Solidago spathulata. (Asteraceae)



POPPY, CALIFORNIA Eschscholzia californica (Papaveraceae)



SAGEWORT, COASTAL *Artemisia pycnocephala* (Asteraceae)



GOLDFIELDS, CALIFORNIA Lasthenia californica ssp. californica (Aster.)



GUMPLANT, COASTAL

Grindelia stricta var. platyphylla (Aster.)



TARWEED, COAST

Deinandra corymbosa (Asteraceae)



TARWEED, COAST *Madia sativa* (Asteraceae)