

AZALEA HILL and SOUTH END OF CARSON RIDGE:

The Central Eastern part of this area contains sources of Corte Madera Creek and drains into San Francisco Bay while the Northern, Southern and Western parts drain into Lagunitas Creek, then Tomales Bay and the Pacific Ocean. Much of the "soil" here is derived from serpentinite- a complex group of hydrous magnesium silicates (HMgSiO) often with associated chromium, iron and nickel. It is an uncommon metamorphic rock formed from hydrated peridotite and which originated deep down at the base of the crust or skin of the Earth, from mantle materials. Our local sites are of rocks of mesozoic age, some 150 million years old. Soils developed from the serpentinite are deficient in important plant nutrients such as potassium while the heavy metals make for a toxic component. Some native plants have evolved a tolerance for these conditions while most introduced weeds grow poorly or not at all on serpentine soils. Several of our rare plants are serpentine endemics. There are patches of soils derived from other Franciscan series rocks- they stand out because the vegetation is more luxuriant and differs in species composition from that on the prevailingly serpentinite soils

Visits made to list the spp. on 3 May 2005, 29 April 2007 and 14 March 2009.

Some nomenclatural updates made 11/ 2012 by Doreen Smith: *= non-native plants

AGAVACEAE (AGAVE FAMILY)

Chlorogalum pomeridianum var. *pomeridianum* Straw-lily, Soap-plant

ALLIACEAE (ONION FAMILY)

Allium amplexans Paper Onion
Allium falcifolium Sickle-leaf Onion

ANACARDIACEAE (POISON-OAK FAMILY)

Toxicodendron diversilobum Poison-oak

APIACEAE (CELERY FAMILY)

Daucus pusillus Wild Carrot
Lomatium dasycarpum Hairy-petal Hog-fennel
Lomatium macrocarpum Glabrous-petal Hog-fennel
Lomatium utriculatum Golden Hog-fennel
Perideridia kelloggii Kellogg's Yampah
Sanicula bipinnatifida Red-purple Sanicle
Sanicula crassicaulis Pacific Sanicle
Sanicula laciniata Cut-leaf Sanicle
Sanicula tuberosa Turkey-pea or Cilantro Sanicle
Scandix pecten-veneris Venus' needle *
Tauschia kelloggii Yellow Parsley
Torilis arvensis Hiker's Curse, Hedge Parsley *

ASTERACEAE (ASTER FAMILY)

Achillea millefolium Yarrow
Agoseris grandiflora Mountain Dandelion

Agoseris heterophylla	Annual Mountain Dandelion	
Arnica discoidea	Ray-less Arnica	
Artemisia douglasiana	Douglas's Mugwort	
Baccharis pilularis	Coyote Bush	
Calycadenia multiglandulosa	Rosin-weed	
Carduus pycnocephalus	Italian Thistle	*
Cirsium hydrophilum var. vaseyi	Mt. Tamalpais Thistle	Listed 1B.2
Cirsium occidentale var. venustum	Red Cobweb thistle	
Cirsium quercetorum	Brownie Thistle	
Cirsium remotifolium	Tall White Thistle	
Cirsium vulgare	Spear Thistle	*
Erigeron reductus var. angustatus	Pine-like Rayless Erigeron	
Eriophyllum confertiflorum	Golden Yarrow	
Eriophyllum lanatum	Woolly Daisy	
Eurybia radulina	Broadleaf Aster	
Grindelia hirsutula	Hairy Gumplant	
Hemizonia congesta ssp. lutescens	Hayfield Tarplant	
Hesperervax sparsiflora var. sparsiflora	Hesperervax	
Hypochaeris glabra	Annual Cat's Ear	*
Hypochaeris radicata	Hairy Cat's Ear	*
Lasthenia californica and /or L. gracilis	Slender Goldfields	
Layia gaillardiodes	Gaillardia Tidytips	
Lessingia micradenia ssp. micradenia	Mt. Tamalpais Lessingia	Listed 1B.2
Logfia filaginoides	Ca. Cudweed	
Logfia gallica	French Cudweed	*
Madia exigua	Tiny Tar-plant	
Madia gracilis	Slender Tar-plant	
Micropus californicus	Cotton-top	
Microseris douglasii	Douglas' dandelion	
Pseudognaphalium californicum	Ca. Everlasting	
Psilocarphus tenellus	Little Woolly- marbles	
Senecio aronicoides	Butterweed	
Rigiopappus leptocladus	Rigiopappus	
Senecio vulgaris	Groundsel	*
Soliva sessilis	Soliva	*
Symphyotrichum chilense	Coast Aster	
Uropappus lindleyi	Silver-puffs	
Wyethia angustifolia	Narrow-leaf Mule's Ears	

BORAGINACEAE (BORAGE FAMILY)

Cryptantha flaccida	Nievitans
Cynoglossom grande	Hound's - tongue
Eriodictyon californicum	Yerba Santa
Nemophila menziesii var. menziesii	Baby-blue-eyes
Phacelia distans	White fern-leaved Phacelia
Phacelia divaricata	Annual Blue Phacelia (Carson Falls area)

Plagiobothrys nothofulvus	Popcorn Flower	
BERBERIDACEAE (BARBERRY FAMILY)		
Berberis pinnata	Oregon-grape	
BRASSICACEAE (MUSTARD FAMILY)		
Barbarea orthoceras	Wintercress	*
Lepidium nitidum	Shining Peppercress	
Cardamine californica	Milkmaids	
Streptanthus glandulosus ssp. secundus	White Jewel-flower	
Streptanthus glandulosus ssp. pulchellus	Mt. Tamalpais Jewelflower	LIST 1B.2
CAMPANULACEAE (BELLFLOWER FAMILY)		
Campanula griffinii	Griffin's White Bellflower	
Githopsis specularioides	Blue-cup	
CAPRIFOLIACEAE (HONEYSUCKLE FAMILY)		
Lonicera hispidula		
CARYOPHYLLACEAE (PINK FAMILY)		
Minuartia douglasii	Little Baby's Breath	
Sagina decumbens ssp. occidentalis	Western Pearlwort	
Silene laciniata ssp. californica	Red Indian Pink	
Silene gallica	Windmill Pink	*
Spergularia rubra	Pink Spurrey	*
Stellaria nitens	Shining Chickweed	
CONVOLVULACEAE (BINDWEED FAMILY)		
Calystegia collina ssp. oxyphylla	Serpentine Morning-glory	LIST4.2
Calystegia purpurata ssp. purpurata	Trailing Morning Glory	
Calystegia subacaulis	Stemless Morning-glory	
CRASSULACEAE (STONECROP FAMILY)		
Crassula connata	Little Stonecrop	
Dudleya cymosa	Rock-lettuce	
Sedum radiatum	Stonecrop	
Sedum spathulifolium	Spoon-leaved Stonecrop	
CUCERBITACEAE (CUCUMBER FAMILY)		
Marah oregana	White -flowered Man-root	
CUPRESSACEAE (CYPRESS FAMILY)		
Hesperocyparis sargentii	Sargent Cypress (a forest)	

CYPERACEAE (SEDGE FAMILY)

Carex serratodens	Serpentine- seep Sedge
Carex densa	Dense-flowered Sedge
Carex spp.	Carex species

DENNSTAEDTIACEAE (BRACKEN FERN FAMILY)

Pteridium aquilinum var. pubescens	Bracken Fern
------------------------------------	--------------

DRYOPTERIDACEAE (WOODFERN FAMILY)

Polystichum munitum	Sword fern
---------------------	------------

ERICACEAE (HEATHER FAMILY)

Arbutus menziesii	Madrone	
Arctostaphylos glandulosa ssp. cushingiana	Smooth Eastwood manzanita	
Arctostaphylos glandulosa ssp. glandulosa	Hispid Eastwood Manzanita	
Arctostaphylos montana ssp. montana	Mt. Tamalpais Manzanita	List 1B.3
Rhododendron occidentale	Western Azalea	

FABACEAE (FAVA BEAN FAMILY)

Acmispon brachycarpus	Hill-Lotus	
Acmispon parviflorus	Small-flowered Lotus	
Acmispon wrangelianus	Sub-pinnate Lotus	
Astragalus gambelianus "var. elmeri"	Elmer's Locoweed	
Astragalus gambelianus "var. gambelianus"	Gambel's Locoweed	
Lathyrus vestitus var. vestitus	Hillside pea	
Lupinus bicolor	Little Lupine	
Lupinus nanus	Sky Lupine	
Medicago polymorpha	Bur-clover	*
Pickeringia montana	Chaparral-pea	
Thermopsis californica	False Lupine/ Golden Banner	
Trifolium albopurpureum	Indian Clover	
Trifolium barbigerum	Bearded Clover	
Trifolium bifidum	Notched-leaf Clover	
Trifolium depauperatum	Balloon Clover	
Trifolium dichotomum	Indian Clover	
Trifolium dubium	Little Hop-clover	*
Trifolium fucatum	Yellow Sour Clover	
Trifolium gracilentum	Pinpoint Clover	
Trifolium macraei	Macrae's Clover	
Trifolium microcephalum	Roundhead Clover	
Trifolium microdon	Toothed-cup Clover	
Trifolium wildenovii	Tomcat Clover	
Trifolium variegatum	Wetland White-tip Clover	
Vicia americana	American Vetch	
Vicia sativa ssp. nigra	European Vetch	
Vicia villosa ssp. varia	Blue-purple vetch	*

FAGACEAE (BEECH FAMILY)

Chrysolepis chrysophylla
Notholithocarpus densiflorus
Quercus agrifolia
Quercus chrysolepis
Quercus durata
Quercus garryana
Quercus wislizeni
Quercus X (several kinds)

Golden Chinquapin
Tanbark Oak
Coast Live Oak
Canyon Live Oak
Leather Oak shrub
Oregon Oak (on sandstone)
Interior Live Oak
Oak hybrids

GARYACEAE (SILKTASSEL FAMILY)

Garrya elliptica

Coast Silk-tassel

GENTIANACEAE (GENTIAN FAMILY)

Cicendia quadrangularis
Gentiana affinis var. ovata
Zeltnera trichantha

Tiny Timwort
Oregon Gentian
Serpentine Centaury (often all white)

GERANIACEAE (GERANIUM FAMILY)

Erodium botrys
Erodium cicutarium
Geranium dissectum
Geranium molle

Broad-leaf Filaree *

Red-stem Filaree *

Cut-leaf Cranesbill *

Soft-leaved Cranesbill *

SAPINDACEAE (SOAPBERRY FAMILY)

Aesculus californica

Ca. Buckeye

IRIDACEAE (IRIS FAMILY)

Iris douglasiana "var. major"
Sisyrinchium bellum

Multi-colored Douglas Iris
Blue-eyed-grass

JUNCACEAE (RUSH FAMILY)

Juncus balticus
Juncus bufonius
Juncus effusus
Juncus occidentalis
Juncus patens
Luzula comosa

Baltic Rush
Toad Rush
Green Rush
Western Rush
Blue-green Rush
Woodrush

LAMIACEAE (MINT FAMILY)

Lepechinia calycina
Monardella purpurea
Monardella villosa var. villosa
Stachys rigida var. quercetorum
Stachys pycnantha

Pitcher-sage
Serpentine Pennyroyal
Hairy Pennyroyal, Coyote Mint
Hedge-nettle
Serpentine- seep Hedge-nettle

LAURACEAE (LAUREL FAMILY)

Umbellularia californica

Bay-Laurel

LILIACEAE (LILY FAMILY)

Calochortus luteus

Yellow Mariposa

Calochortus umbellatus

Oakland Star-tulip

List 4.2

Fritillaria affinis var. *affinis*

Mission-bells

Lilium pardalinum

Leopard Lily

LINACEAE (FLAX FAMILY)

Hesperolinon congestum

Western Dwarf Flax

List 1B.2

Hesperolinon micranthum

White Dwarf Flax

MALVACEAE (MALLOW FAMILY)

Fremontodendron californicum

Flannel bush (N. E. of Cascade Canyon Rd.)

Sidalcea malviflora

Common Checkerbloom

MELANTHIACEAE (FALSE HELLEBORE FAMILY)

Toxicoscordion fremontii

Star-ily Death Camas

Toxicoscordion fontanum

Marsh Zigadene

List 4.2

MONTIACEAE (MINER'S-LETTUCE FAMILY)

Calandrinia ciliata

Red-maids

Claytonia exigua ssp. *exigua*

White Claytonia

Claytonia gypsophiloides

Rosy Pink Claytonia (fleshy rosulate forma)

Claytonia parviflora

Small-flowered Claytonia

Claytonia perfoliata var. *perfoliata*

Miner's Lettuce (variable leaf formas)

MYRICACEAE (MYRTLE FAMILY)

Morella californica

Ca. Wax-myrtle

MYRSINACEAE (MYRSINE FAMILY)

Anagallis arvensis

Scarlet Pimpernel

*

ONAGRACEAE (EVENING-PRIMROSE FAMILY)

Clarkia gracilis var. *gracilis*

Graceful Clarkia

Clarkia purpurea var. *quadrivulnera*

Wine-cup Clarkia

Clarkia rubicunda

Ruby Chalice Clarkia

Epilobium ciliatum

Common Willow-herb

Epilobium minutum

Tiny Pink Willow-herb

Taraxia ovata

Suncups

ORCHIDACEAE (ORCHID FAMILY)

Epipactis gigantea
Piperia elongata
Piperia transversa

Stream Orchid (Carson Falls area)
Green Rein Orchid
Rein Orchid

OROBANCHACEAE (BROOMRAPE FAMILY)

Castilleja attenuata
Castilleja densiflora ssp. *densiflora*
Castilleja foliolosa
Castilleja rubicundula var. *lithospermoides*
Castilleja subinclusa ssp. *franciscana*
Pedicularis densiflora
Orobanche fasciculata var. *franciscana*
Triphysaria pusilla

Valley Tassels
Owl's Clover
Chaparral Paintbrush
Cream-sacs
Franciscan Paintbrush
Indian Warrior (local var.)
Yellow-flowered Broomrape
Least Owl's Clover

PAPAVERACEAE (POPPY FAMILY)

Eschscholzia californica
Platystemon californicus

Ca. Poppy
Cream-cups

PHRYMACEAE (LOPSEED FAMILY)

Mimulus aurantiacus
Mimulus douglasii
Mimulus guttatus (annual form)

Sticky Monkey-flower Bush
Chinless Monkey-flower
Seep-spring Monkey-flower

PINACEAE (PINE FAMILY)

Pseudotsuga menziesii
Pinus muricata

Douglas-fir
Bishop Pine

PLANTAGINACEAE (PLANTAIN FAMILY)

Antirrhinum vexillocalyculatum
Collinsia sparsiflora var. *collina*
Plantago erecta

Purple Snapdragon
Little Chinese Houses
Annual Plantain

POACEAE (GRASS FAMILY)

Aegilops triuncialis
Aira caryophyllea
Avena barbata
Briza minima
Bromus carinatus
Bromus diandrus
Bromus hordeaceus
Calamagrostis ophitidis
Cynosurus echinatus
Danthonia californica
Elymus multisetus
Festuca californica

Goat Grass *

Silver Hairgrass *

Wild Oats *

Little Rattlesnake Grass *

Keeled Brome

Ripgut Brome *

Soft Chess *

Serpentine Reed-grass List 4.3

Dog-tail Grass *

Ca. Oat Grass

Squirrel-tail Grass

Ca. Fescue

Festuca idahoensis
Fesuca microstachys
Festuca perennis
Festuca rubra
Gastridium phleoides
Hainardia cylindrica
Koeleria macrantha
Melica californica
Melica torreyana
Phalaris californica
Poa secunda
Scribneria bolanderi
Stipa lepida
Stipa pulchra

Idaho Fescue
Semaphore Fescue
Italian Rye-grass *
Red Fescue
Nit grass *
Rat-tail grass *
June Grass
Grassland Melica
Woodland Melica
Ca. Phalaris
Malpais Bluegrass
Scribner's Annual Grass
Spotted Needle Grass
Purple Needle Grass

POLEMONIACEAE (JACOB'S-LADDER FAMILY)

Gilia capitata ssp. *capitata*
Gilia clivorum
Leptosiphon acicularis
Leptosiphon androsaceus
Leptosiphon parviflorus
Microsteris gracilis
Navarretia heterodoxa
Navarretia mellita
Navarretia rosulata

Blue-headed Gilia
Small Gilia
Needle-leaf Linanthus List 4.2
Lavender Baby-stars
Baby-stars
Little Annual Phlox
Blue Navarretia
Small Skunkweed
Mt. Tamalpais Navarretia List1B.2

POLYGALACEAE (MILKWORT FAMILY)

Polygala californica

Ca. Milkwort

POLYGONACEAE (DOCK FAMILY)

Chorizanthe polygonoides
Eriogonum luteolum var. *caninum*
Eriogonum nudum
Rumex acetosella

Creeping Chorizanthe
Tiburon Annual Buckwheat List 1B.2
Nude-stemmed Buckwheat
Sheep sorrel *

POLYPODIACEAE (POLYPODY FERN FAMILY)

Polypodium californicum
Polypodium calirhiza

Rock Polypody
Common Polypody

PRIMULACEAE (PRIMROSE FAMILY)

Dodecatheon hendersonii

Shooting Stars

PTERIDACEAE (BRAKE FERN FAMILY)

Aspidotis densa
Pellaea andromedifolia
Pentagramma triangularis

Serpentine Fern, Indian Dream
Coffee Fern
Gold-back Fern

RANUNCULACEAE (BUTTERCUP FAMILY)

Delphinium hesperium
 Delphinium variegatum
 Ranunculus californicus

Western Larkspur
 Royal Larkspur
 Ca. Buttercup

RHAMNACEAE (BUCKTHORN FAMILY)

Ceanothus cuneatus
 Ceanothus jepsoni
 Ceanothus X (of the 2 above spp.)
 Ceanothus oliganthus var. soledadensis
 Ceanothus thyrsiflorus
 Frangula californica

Common Buckbrush (5-merous)
 Serpentine Buckbrush (purple 6-merous fls.)
 Hybrid Ceanothus, (not C. masonii) 5-merous
 Jim-bush
 Blue-blossom
 Coffeeberry

ROSACEAE (ROSE FAMILY)

Acaena pinnatifida var. californica
 Adenostoma fasciculatum
 Aphanes occidentalis
 Crataegus monogyna
 Fragaria vesca
 Heteromeles arbutifolia
 Horkelia tenuiloba
 Rosa gymnocarpa
 Rosa spithamea var. sonomensis

Acaena
 Chamise
 Western Parsley Piert
 European Hawthorn *
 Wild Strawberry
 Toyon
 Yarrow-leaved Horkelia List 1B.2 (poss.ext.)
 Wood Rose
 Chaparral Rose

RUBIACEAE (MADDER FAMILY)

Galium aparine
 Galium californicum
 Galium divaricatum
 Galium porrigens
 Sherardia arvensis

Cleavers *
 Ca. Hairy Bedstraw
 Annual Bedstraw *
 Climbing Bedstraw
 Pink Madder *

SAXIFRAGACEAE (SAXIFRAGE FAMILY)

Micranthes californica

Ca. Early Saxifrage

THEMIDACEAE (BRODIAEA FAMILY)

Brodiaea elegans
 Dichelostemma capitatum
 Tritoleia hyacinthina
 Tritoleia laxa

Harvest Brodiaea
 Bluedicks
 White Brodiaea
 Ithuriel's Spear

VALERIANACEAE (VALERIAN FAMILY)

Plectritis ciliosa
 Plectritis macrocera

Long-spur Pink Plectritis
 Short-spur White Plectritis

Notes: LISTED plants- 1B.1 is the rarest category; 4 = limited distribution