



Redwood Community Action Agency

Subject: Special Status Plant Surveys 2021 Technical Memorandum for the Little River Trail – Trinidad to McKinleyville Project, Humboldt County, CA.

Introduction

This Technical Memorandum reports results of the 2021 special status plant survey in the area of the Little River Trail – Trinidad to McKinleyville Project (LRTP) in Humboldt County, CA (Figure 1). Results of the plant survey are presented in Table 1. RCAA Project Coordinator and biologist Susannah Ferson performed the early season special status plant surveys on April 14 and 15, 2021 and a follow up survey to identify later-blooming plants on May 20 and 21, 2021. Restoration Field Technicians Andres Rodriguez and Calvin Brekeen IV provided assistance.

The purpose of this evaluation was to conduct seasonally appropriate surveys for state, federal, and other sensitive listed plant species in the proposed project area. The surveys attempted to identify all vascular plants within the 2021 project area to the taxonomic level necessary to determine rarity and listing status, and to document the presence of special status plants within the project area. The results will be used for planning, design, and to avoid or mitigate impacts associated with project construction.

The length of the 2021 Project Study Boundary (PSB) for the LRTP runs parallel to the west side/ south-bound section of Highway 101 from HUM101 97.024 to HUM101 97.779 between Scenic Drive and Clam Beach Drive, three miles south of Trinidad. The width of the PSB extends from the edge of the highway shoulder west for approximately 35 meters in the lower Little River watershed located between McKinleyville and Trinidad, California (Figure 2).

The 2021 LRTP includes lands adjacent to Highway 101 South for an approximate 1.0 mile section between the southern end of Scenic Drive east of Moonstone Beach, across the Little River Bridge to Clam Beach Drive east of Little River State Park. The Trinidad Coastal Land Trust is the property owner of the northern trailhead and the remaining trail is located within the Caltrans right-of-way. California State Parks is the property owner west of the future trail.

The PSB contains coastal scrub forest, wetland and dune habitat, and consists of the highly modified habitat of the highway shoulder. An unnamed creek bisects the PSB approximately 200 meters from the north

trailhead and Little River crosses through the southern end of the trail, approximately 700 meters from the south trailhead.

The proposed Little River Trail will connect the existing Hammond Coastal Trail in McKinleyville north to Trinidad beaches thereby closing a key gap in the California Coastal Trail. The LRTP will provide pedestrians and bikers a much-needed alternative to utilizing the four foot shoulder of Highway 101 to travel from Clam Beach to Trinidad. The LRTP is currently in the planning and permitting phase.

Regulatory Setting

The plant species listed on the California Native Plant Society's (CNPS) California Rare Plant Ranking (CRPR) List 1A, 1B and 2 qualify for state listing as Endangered or Threatened following the California Fish and Game Code. Plant species that are classified as special status under State jurisdiction include all species listed as threatened, endangered, or as a candidate species by the California Department of Fish and Wildlife (CDFW) under the California Endangered Species Act (CESA). As a trustee agency, CDFW manages and oversees these special status plant species. As a component of the CEQA process, these species should be considered because they meet the definition of Threatened or Endangered under Sections 2062 and 2067 of the California Fish and Game Code. Under CEQA, CRPR List 3 and 4 plants do not have formal protection. The lists of special status species are updated periodically by CDFW including the above categories.

Projects consisting of activities that would lead to "take," possession, import, or export of state-listed plant species including research, seed banking, reintroduction efforts, habitat restoration, and other actions relating to any plant designated SE (State endangered), ST (State threatened), SR (State rare), or SC (State candidate for listing) are obligated to obtain a "Scientific, Educational, or Management Permit" from CDFW. Those special status plant species that fall under Federal jurisdiction include those designated as endangered, threatened, or as candidate species by the Fish and Wildlife Service (USFWS) under the U.S. Endangered Species Act (ESA).

The ESA defines Critical Habitat as a specific geographic area containing features essential for the conservation of an endangered or threatened species. Consultation with USFWS by federal lead agencies for activities they carry out, authorize, or fund is required by the ESA. Critical habitat that is federally designated for a listed or proposed species that may be in the project action area should be evaluated according to Section 7 of the ESA.

Methods

RCAA staff worked together with Caltrans to develop the limits of the 2021 project study boundary (PSB) prior to conducting environmental fieldwork. The PSB terminology is adopted from the language, definitions and permit processes by the U.S. Army Corps of Engineers (USACE). The PSB is determined on a project specific basis and takes into consideration the possible alternate boundaries of the project, fill/cut slopes, temporary impact areas and/or adjacent areas if appropriate, access, new or modified utilities and right of ways, and bordering areas that may be feasibly included in the study. The PSB (Figure 2) may be altered depending on arising issues such as private property ownerships, access restrictions, and areas excluded from project use.

Pre-survey database investigations included a search of the *California Natural Diversity Database* (CNDDDB) [CDFW 2020] and the CNPS *Inventary of Rare and Endangered Vascular Plants* (CNPS 2020) to determine if CRPR and List 3 and 4 plant species and habitats have been observed or have the potential to occur in the Crannell USGS 7.5' quadrangle and/or the surrounding quadrangles (Trinidad, Rodger's Peak, Bald Hills, Panther Creek, Arcata north, Blue Lake, Tyee City). The resulting list of potential plant species and their rankings was compiled and referenced prior to and during the survey. Aerial images of the PSB were utilized prior to and during the survey to determine potential habitats for CRPR plant species and to assure the entire PSB was surveyed.

The database search generated 156 sensitive species previously documented in the eight-quadrangle assessment area. Of these, one species was found within the PSB during the survey. Within the search area, five sensitive plant communities are documented according to the CNDDDB (2020); none occur within the PSB or the Crannell quadrangle.

The survey to detect the habitation of special status plant species (listed as rare, threatened, endangered, or candidate under the State or Federal Endangered Species Acts, CNPS, or species of local importance) was scheduled accordingly to accommodate the blooming species predicted to have moderate to high potential to be present within the project area. The surveys followed the *Protocols for Surveying and Evaluating Impacts to Special status Native Plant Populations and Natural Communities* by the California Natural Resource Agency (CDFW 2018) and *General Rare Plant Survey Guidelines by the Endangered Species Recovery Program* (Cypher 2002).

A survey was conducted that sampled and identified potential habitat(s) in the project area. Nomenclature follows *The Jepson Manual* (Baldwin et al 2012). The surveyed plants were identified to the lowest taxonomic level (genus or species) needed for rare plant identification. The species surveys were conducted by walking the project area for target species and recording the extent, approximate number of species, and/or percent cover of special status plant species observed. Approximately 25 field person hours were spent surveying the PSB in 2021.

Results

On the first day of the site evaluation, May 20, 2021, one special status species was observed during the protocol level survey as identified in Table 1, below. One small patch consisting of 5 individual plants of trailing black currant was found along the west side of the existing foot path approximately 600 yards from the north trailhead. The mapped occurrence is presented in Figure 2.

CNDDDB field forms were completed in the field and will be submitted to CNDDDB.

Table 1. Special Status Plant Survey Results		
Scientific Name	Common Name	Status
Ribes laxiflorum	Trailing black currant	4.3-watch list

Recommendations

State and/or federal permits will address mitigation measures for special status plant species and recommend that significant impacts to special status plants present on site shall be minimized, avoided, and contingently compensated.

Trailing black currant is ranked 4.3 by the CNPS but does not require mitigation. However, the small population will be flagged and avoided if at all feasible. If avoidance is not possible, Caltrans may recommend relocating the population away from the project area.

Conclusion

The purpose of this survey was to identify and map State and Federal listed plants and special status plants within the project boundary. This survey identified one California Rare Plant Rank species, *Ribes laxiflorum*. This effort and reporting are intended to help guide the construction of the project in a manner which avoids impacts to the plant species described herein.

References

Baldwin, B. D. 2012. *The Jepson Manual: Second Edition*. University of California Press. Berkeley, CA.

CDFW 2018. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. State of California, The Resources Agency, Department of Fish and Wildlife (CDFW), Biogeographic Data Branch. Accessed: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>. Accessed May 2018.

California Department of Fish and Wildlife. 2018. California Natural Diversity Database (CNDDDB). USGS 7.5 Minute Quadrangles: Trinidad North, Rodger's Peak, Bald Hills, Trinidad South, Panther Creek, Arcata north, Blue Lake, Tyee City. California Department of Fish and Wildlife (CDFW). Sacramento, California. Accessed April 2021.

CDFW 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*. Sacramento, CA.

CNPS 2018. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society (CNPS). Sacramento, CA. Accessed: May, 2018.

Cypher, E. A. 2002. General rare plant survey guidelines. *Prepared for the Endangered Species Recovery Program*.

USFWS 2002. General Rare Plant Survey Guidelines by the Endangered Species Recovery Program.

Appendix

1. Figures

Figure 1: Little River Trail Location Map

Figure 2: 2021 Little River Trail Project Study Boundary

2. Tables

Table 2: Special status plant species with potential to occur in the PSB

Table 3: Species list of plants observed within the PSB

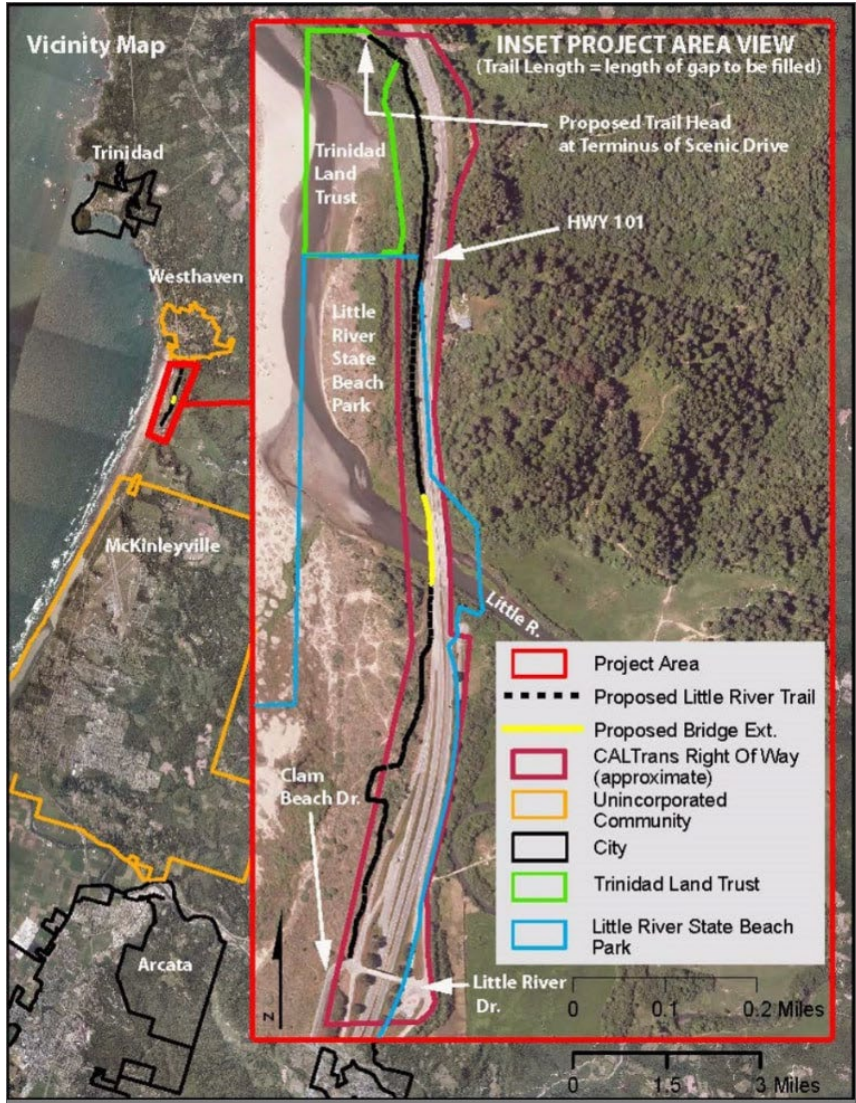


Figure 1: Little River Trail location map



Figure 2: 2021 Little River Trail project study boundary

Table 2: Special status plant species with potential to occur in the PSB.

Scientific Name	Common Name	Federal Status	State Status	CA Rare Plant Rank	Quad Name	Survey Results
Discelium nudum	naked flag moss	None	None	2B.2	TRINIDAD	Not observed
Trichodon cylindricus	cylindrical trichodon	None	None	2B.2	TRINIDAD	Not observed
					ARCATA	
Fissidens pauperculus	minute pocket moss	None	None	1B.2	NORTH	Not observed
Bryoria spiralifera	twisted horsehair lichen	None	None	1B.1	CRANNELL	Not observed
Usnea longissima	Methuselah's beard lichen	None	None	4.2	BALD HILLS	Not observed
Angelica lucida	sea-watch	None	None	4.2	CRANNELL	Not observed
Glehnia littoralis ssp. leiocarpa	American glehnia	None	None	4.2	CRANNELL	Not observed
Erigeron bloomeri var. nudatus	Waldo daisy	None	None	2B.3	TRINIDAD	Not observed
Hemizonia congesta ssp. tracyi	Tracy's tarplant	None	None	4.3	BALD HILLS	Not observed
Hesperevax sparsiflora var. brevifolia	short-leaved evax	None	None	1B.2	TRINIDAD	Not observed
Layia carnosa	beach layia	Endangered	Endangered	1B.1	CRANNELL	Not observed
Packera bolanderi var. bolanderi	seacoast ragwort	None	None	2B.2	CRANNELL	Not observed
					RODGERS	
Cardamine angulata	seaside bittercress	None	None	2B.1	PEAK	Not observed
Erysimum menziesii	Menzies' wallflower	Endangered	Endangered	1B.1	TYEE CITY	Not observed
Silene scouleri ssp. scouleri	Scouler's catchfly	None	None	2B.2	TRINIDAD	Not observed
					ARCATA	
Carex arcta	northern clustered sedge	None	None	2B.2	NORTH	Not observed
Carex buxbaumii	Buxbaum's sedge	None	None	4.2	TRINIDAD	Not observed
Carex lenticularis var. limnophila	lagoon sedge	None	None	2B.2	TRINIDAD	Not observed
Carex leptalea	bristle-stalked sedge	None	None	2B.2	CRANNELL	Not observed
Carex lyngbyei	Lyngbye's sedge	None	None	2B.2	CRANNELL	Not observed
					RODGERS	
Carex saliniformis	deceiving sedge	None	None	1B.2	PEAK	Not observed
Carex viridula ssp. viridula	green yellow sedge	None	None	2B.3	TRINIDAD	Not observed
					RODGERS	
Eleocharis parvula	small spikerush	None	None	4.3	PEAK	Not observed
Empetrum nigrum	black crowberry	None	None	2B.2	TRINIDAD	Not observed
					ARCATA	
Astragalus rattanii var. rattanii	Rattan's milk-vetch	None	None	4.3	NORTH	Not observed
Astragalus umbraticus	Bald Mountain milk-vetch	None	None	2B.2	BALD HILLS	Not observed
Hosackia gracilis	harlequin lotus	None	None	4.2	TRINIDAD	Not observed
Lathyrus glandulosus	sticky pea	None	None	4.3	ARCATA	Not observed

<i>Lathyrus japonicus</i>	seaside pea	None	None	2B.1	NORTH CRANNELL	Not observed
<i>Lathyrus palustris</i>	marsh pea	None	None	2B.2	TRINIDAD	Not observed
<i>Ribes laxiflorum</i>	trailing black currant	None	None	4.3	CRANNELL	Present
<i>Romanzoffia tracyi</i>	Tracy's romanzoffia	None	None	2B.3	TRINIDAD	Not observed
<i>Juncus nevadensis</i> var. <i>inventus</i>	Sierra rush	None	None	2B.2	TRINIDAD	Not observed
<i>Lycopus uniflorus</i>	northern bugleweed	None	None	4.3	TRINIDAD PANTHER	Not observed
<i>Erythronium oregonum</i>	giant fawn lily	None	None	2B.2	CREEK	Not observed
<i>Erythronium revolutum</i>	coast fawn lily	None	None	2B.2	BLUE LAKE ARCATA	Not observed
<i>Lilium occidentale</i>	western lily	Endangered	Endangered	1B.1	NORTH	Not observed
<i>Lycopodiella inundata</i>	inundated bog-clubmoss	None	None	2B.2	TRINIDAD	Not observed
<i>Lycopodium clavatum</i>	running-pine	None	None	4.1	CRANNELL	Not observed
<i>Iliamna latibracteata</i>	California globe mallow maple-leaved	None	None	1B.2	BLUE LAKE	Not observed
<i>Sidalcea malachroides</i>	checkerbloom	None	None	4.2	BLUE LAKE	Not observed
<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	None	None	1B.2	BALD HILLS ARCATA	Not observed
<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	None	None	1B.2	NORTH	Not observed
<i>Monotropa uniflora</i>	ghost-pipe	None	None	2B.2	TRINIDAD	Not observed
<i>Pityopus californicus</i>	California pinefoot	None	None	4.2	CRANNELL ARCATA	Not observed
<i>Montia howellii</i>	Howell's montia	None	None	2B.2	NORTH	Not observed
<i>Abronia umbellata</i> var. <i>breviflora</i>	pink sand-verbena	None	None	1B.1	CRANNELL	Not observed
<i>Oenothera wolfii</i>	Wolf's evening-primrose	None	None	1B.1	CRANNELL	Not observed
<i>Listera cordata</i>	heart-leaved twayblade	None	None	4.2	CRANNELL	Not observed
<i>Piperia candida</i>	white-flowered rein orchid	None	None	1B.2	CRANNELL	Not observed
<i>Castilleja ambigua</i> var. <i>humboldtiensis</i>	Humboldt Bay owl's-clover	None	None	1B.2	TRINIDAD	Not observed
<i>Castilleja litoralis</i>	Oregon coast paintbrush Mendocino Coast	None	None	2B.2	CRANNELL	Not observed
<i>Castilleja mendocinensis</i>	paintbrush Point Reyes salty bird's- beak	None	None	1B.2	TRINIDAD	Not observed
<i>Chloropyron maritimum</i> ssp. <i>palustre</i>	small groundcone	None	None	1B.2	TYEE CITY	Not observed
<i>Kopsiopsis hookeri</i>	Bolander's reed grass	None	None	2B.3	BALD HILLS	Not observed
<i>Calamagrostis bolanderi</i>	nodding semaphore grass	None	None	4.2	CRANNELL	Not observed
<i>Pleuropogon refractus</i>	Pacific gilia	None	None	4.2	CRANNELL	Not observed
<i>Gilia capitata</i> ssp. <i>pacifica</i>	dark-eyed gilia	None	None	1B.2	CRANNELL	Not observed
<i>Gilia millefoliata</i>	Oregon polemonium	None	None	1B.2	CRANNELL	Not observed
<i>Polemonium carneum</i>		None	None	2B.2	TRINIDAD	Not observed

Moneses uniflora	woodnymph	None	None	2B.2	RODGERS PEAK	Not observed
Coptis laciniata	Oregon goldthread	None	None	4.2	BALD HILLS	Not observed
Chrysosplenium glechomifolium	Pacific golden saxifrage	None	None	4.3	CRANNELL	Not observed
Mitellastrum caulescens	leafy-stemmed mitrewort	None	None	4.2	CRANNELL	Not observed
Tiarella trifoliata var. trifoliata	trifoliolate laceflower	None	None	3.2	BLUE LAKE	Not observed
Viola palustris	alpine marsh violet	None	None	2B.2	TRINIDAD	Not observed

Source: CNDDDB and CNPS accessed 4/12/2021. Assessment area consists of USGS 7.5 minute quadrangles: Trinidad, Arcata North, Tyee City, Panther Creek, Blue Lake, Bald Hills, Rodger's Peak.

California Native Plant Society Rare Plant Ranks (CRPR)

1A- Presumed Extirpated in California and either Rare or extinct elsewhere

1B - Rare, Threatened, or Endangered in California and elsewhere

2 - Rare, Threatened or Endangered in California, but more common elsewhere

2A- Plants Presumed Extirpated in California, but more common elsewhere

2B- Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3 - Review List (more information needed)

4 - Watch List (limited distribution in California)

Threat Ranks:

0.1 Seriously threatened in California

0.2 Moderately threatened in California

0.3 Not very threatened in California

Table 3: 2021 Species list of plants observed within the PSB

Scientific name	Common name
Achillea millefolium	common yarrow
Agrostis stolonifera	redtop
Alectoria sarmentosa	common witch's hair
Allium triquetrum	three-cornered garlic
Alnus rubra	red alder
Ammophila arenaria	European beach grass
Anthoxanthum odoratum	sweet vernal grass
Arctostaphylos uva-ursi	oso manzanita
Armeria maritima	Sea-pink
Artemisia vulgaris	mugwort
Asarum caudatum	wild ginger
Athyrium filix-femina	Lady fern
Avena fatua	wild oat
Baccharis pilularis	coyote brush
Blechnum spicant	deer fern
Brassica rapa	common mustard
Briza minor	small rattlesnake grass
Bromus carinatus	California brome
Bromus diandrus	rip gut brome
Bromus hordeaceus	soft chess
Calamagrostis nutkaensis	Nootka reed grass
Cardimine hirsuta	hairy bittercress
Cardionema ramosissimum	sand mat
Carex obnupta	slough sedge
Ceanothus thyrsiflorus	blue blossom ceanothus
Cerastrium glomeratum	sticky chickweed
Claytonia sibirica	candy flower
Scientific name	Common name

Claytonia perfoliata	miner's lettuce
Cortaderia jubata	pampas grass
Cotoneaster pannosus	silverleaf cotoneaster
Cytisus scoparius	Scotch broom
Daucus carota	wild carrot
Delairea odorata	cape ivy
Delphinium decorum ssp. decorum	coastal larkspur
Digitalis purpurea	purple foxglove
Dryopteris expansa	wood fern
Equisetum telmateia	giant horsetail
Eriogonum latifolium	coast buckwheat
Erodium moschatum	whitestem filaree
Erythranthe dentata	tooth leaved monkeyflower
Eschscholzia californica	California poppy
Festuca arundinacea	reed fescue
Festuca rubra	red fescue
Foeniculum vulgare	fennel
Fragaria chiloensis	strawberry
Frangula purshiana	cascara sagrada
Galium aparine	bed straw
Gallium triflorum	sweet scented bedstraw
Gaulthoria shallon	salal
Genista monspessulana	French broom
Geranium dissectum	wild geranium
Geranium robertianum	herb robert
Hedera helix	English ivy
Heracleum maximum	cow's parsnip
Hesperocyparis macrocarpa	Monterey cypress
Holcus lanatus	common velvet grass
Hypochaeris radicata	rough cat's-ear
Hypogymnia inactiva	forking bone lichen
Ilex aquifolium	English holly
Scientific name	Common name

Juncus balticus	Baltic rush
Juncus patens	spreading rush
Lamium purpureum	red dead nettle
Linum ssp.	flax
Lonicera involucrata	twinberry honeysuckle
Lonicera ssp.	honeysuckle
Lotus corniculatus	garden bird's foot-trefoil
Lupinus arboreus	yellow bush lupine
Lupinus bicolor	miniature lupine
Lysichiton americanus	yellow skunk cabbage
Lysimachia arvensis	scarlet pimpernel
Maianthemum dilatatum	false lily of the valley
Malvus ssp.	mallow
Marah oregana	coast man-root
Medicago arabica	spotted burclover
Mentha arvensis	American wild mint
Morella californica	Pacific bayberry
Myrica californica	Pacific wax myrtle
Oenanthe sarmentosa	water parsely
Oxalis oregana	redwood sorrel
Pentagramma triangularis	goldback fern
Petasites frigidus	colt's foot
Phalaris arundinacea	reed canary grass
Picea sitchensis	Sitka spruce
Pinus contorta ssp. contorta	lodgepole pine
Pinus radiata	Monterey pine
Plantago lanceolata	plantain
Platismatia glauca	rag bag lichen
Platismatia norvegica	laundered rag lichen
Poa annua	annual blue grass
Polygonum paronychia	dune knotweed
Polypodium scolieri	leather fern
Polystichum munitum	sword fern
Populus trichocarpa	black cottonwood
Potentilla anserina	Pacific silverweed
Pseudotsuga menziesii	Douglas fir
Scientific name	Common name

Pteridium aquilinum	nothern bracken fern
Raphanus raphanistrum	wild radish
Ribes laxiflorum	trailing black currant
Ribes sanguineum	red flowered currant
Rosa californica	California wild rose
Rubus armeniacus	Himalyan blackberry
Rubus spectabilis	salmonberry
Rubus ursinus	California dewberry
Rumex acetosella	sheep sorrel
Rumex obtusifolius	broad-leaved dock
Salix hookeriana	coastal willow
Sambucus racemosa	red elderberry
Scirpus microcarpus	red-tinge bulrush
Scrophularia californica	bee plant
Senecio minimus	coastal burnweed
Silene gallica	common catchfly
Solanum dulcamara	European bitterweet
Solidago spathulata	dune golden rod
Sonchus asper ssp. asper	sow thistle
Stachys ajugoides	hedge nettle
Stellaria ssp.	chickweed
Symphyotrichum chilense	Pacific American-aster
Tanacetum bipinnatum	dune tansy
Tolmiea menziesii	piggyback plant
Trifolium repens	common clover
Trifolium dubium	shamrock
Triphysaria eriantha ssp. eriantha	butter and eggs
Trisetum cernuum	tall trisetum
Umbellularia californica	California bay
Urtica dioica	stinging nettle
Vaccinium ovatum	black huckleberry
Vaccinium parvifolium	red huckleberry
Veronica persica	bird's eye speedwell
Vicia hirsuta	hairy vetch
Vicia gigantea	giant pea
Vicia sativa	common vetch
Vinca major	greater periwinkle

