

# Technical Memorandum



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**To:** Dean Fitch, UC Santa Cruz Department of Physical Planning and Construction.

**From:** Rob Preston, Senior Botanist

**Copies:** Shabnam Barati, URS Corp.

**Date:** July 15, 2005

**Subject:** Review of "Plants of Interest" at the University of California at Santa Cruz

**Project #:** 04559.04

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## Purpose and Summary

This technical memorandum describes the evaluation Jones & Stokes conducted to determine which plants identified in the 1988 LRDP process have special-status today under CEQA and therefore which species should be evaluated in the 2005 LRDP. Of the 122 species evaluated, the following information was concluded.

- 4 species meet the standard in CEQA for treatment as threatened or endangered species and should be addressed in the 2005 LRDP EIR.
- 64 species meet the criteria for treatment as "Plants of Interest", which will continue to be studied by University of California, Santa Cruz (UC Santa Cruz) staff, faculty, and students as funding comes available.
- 26 species were found to be locally uncommon but did not meet any other criteria for treatment as "Plants of Interest."
- 23 species were found to be locally common.
- 5 plant taxa were hybrids, not named species.

## Introduction

As part of the baseline study for the UC Santa Cruz 1988 Long Range Development Plan , Robert Buck (1986) developed a list of "significant plant species" occurring on the UC Santa Cruz campus. The purpose of the list was to identify species of management concern, not just those species protected under state or federal law, but also species of biological, ecological, or

geographic interest. Jones & Stokes reviewed the current list of “significant plant species” and reassessed the current status and distribution of each species. This report presents the results of the reassessment.

## **Background**

Buck (1986) developed the list of “significant plant species” occurring on the UC Santa Cruz campus based on campus-wide field surveys and on information obtained from previous surveys conducted on the campus. The list included state or federally listed plant species, species proposed or candidates for listing, species listed in the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (Smith and York 1984), and locally uncommon species. Buck used a qualitative definition of locally uncommon, defined as species with habitats few in number in Santa Cruz County or that are found in only a small percentage of suitable habitats. Additional criteria for recognizing locally uncommon species included the following points.

- Species rare in the Santa Cruz Mountains, determined from the *Flora of the Santa Cruz Mountains* (Thomas 1961).
- Species endemic to the Santa Cruz Mountains.
- Species which have a southern range terminus on the UC Santa Cruz campus.
- Species occurring unusually close to the coast on the UC Santa Cruz campus.
- Plants of particular scientific interest.
- Plants that are uncommon in Santa Cruz County, and therefore could not be considered as special-status species or Plants of Interest.

Buck identified 73 plant species that he proposed as significant plant species of the UC Santa Cruz campus. Buck identified 41 additional significant plant species that had been reported from the campus in previous surveys but for which he was unable to locate any extant occurrences. EcoSystems West (2002) recommended another eight species to add to the list, based on their surveys of the North Campus Area.

## **Locally Uncommon Species**

Currently, there are no statewide guidelines for recognizing and protecting locally uncommon species. In 2004, the CNPS Rare Plant Program established working groups and held a series of planning meetings to evaluate the program and provide direction for improving the program in

the future. A Locally Rare Working Group was established to develop recommendations on how to address the issue of locally rare species (i.e., species that are rare within a certain geographic area such as a county but more common elsewhere in their range). At the planning meeting held on August 19, 2004, proposals were presented for preparing a white paper summarizing the conservation significance of locally rare (peripheral) populations and for developing guidelines to help CNPS chapters establish their own locally rare programs. These guidelines have not yet been adopted.

Lists of locally uncommon species in California have been developed for Alameda and Contra Costa Counties, Ventura County, and Santa Barbara County. The list of rare, unusual and significant plants in Alameda and Contra Costa Counties (Lake 2004) includes locally uncommon plants, defined as species having five or fewer locations in Alameda and Contra Costa Counties. Some species with more than five locations were included if the following criteria were met.

- The occurrences are disjunct from the main species distribution.
- The locations are at the limits of the species range and have small or threatened populations.
- The species have a small geographic range.
- The species occur in small populations in limited or threatened habitats.
- The populations at all of the locations are small.
- The populations are known to be declining or threatened.

Magney (2004) also included locally uncommon species in his checklist of Ventura County rare plants. The criteria for recognizing locally uncommon species included at least one of the following.

- Species with ten (10) or fewer populations within Ventura County.
- Species at the limits of their distribution range (southernmost, northernmost, westernmost extent).
- Species for which the type locality occurs within the County (then only the type locality is considered sensitive).

Wilken (undated) developed a list of locally rare plants for Santa Barbara County. The list includes species with eight or fewer occurrences in Santa Barbara County, based on herbarium specimens, published references, and other verified observations. The list also includes species

at the geographic limits of their distribution. The list did not include state or federally listed species or CNPS listed species with more than eight occurrences. The list also did not include hybrids or species believed to occur in Santa Barbara County but not documented as occurring there.

## **Definition of Plants of Interest**

Although Buck used the term “significant plant species,” the term “Plants of Interest” is used in this memo, because the term “significant” has a specific legal connotation in the context of the California Environmental Quality Act (CEQA). The proposed definition of “Plants of Interest” draws upon criteria shared by each of the four examples cited above. The definition has both a quantitative component (i.e., the number of occurrences in a particular geographic region) as well as qualitative components. For this report, “Plants of Interest” are defined as named species that are locally uncommon and meet at least one of the following conditions.

- Populations are disjunct from the main distribution.
- Populations are at the limits of the species range.
- Populations are associated with sensitive habitats.
- Populations consist of only a few individuals.
- Populations are known to be declining or threatened.

“Locally uncommon” is defined for this report as having five or fewer occurrences in Santa Cruz County. The condition of being uncommon is not sufficient, by itself, to warrant recognition as “Plant of Interest”. Species with few occurrences may be under-documented. Other qualities of species occurrences in an area are important for determining whether they are of interest. It is widely accepted that populations on the periphery of a species range have evolutionary and ecological importance. In sensitive habitats, uncommon species serve as indicators of the quality of the habitat, as a decline in the habitat quality may first be recognized by the disappearance of the uncommon species. Populations consisting of only a few individuals are subject to local extirpation resulting from chance events. Species with declining or threatened populations may warrant listing as threatened or endangered in the foreseeable future, and protection of the populations may help avoid listing. With one exception, only named species were considered for designation as Plants of Interest; hybrids were not included. The exception is a sedge species described by EcoSystems West whose taxonomic status is uncertain, but which may be a new species.

## Methods

Jones & Stokes' botanists reviewed Buck's lists of "significant plant species" and EcoSystem West's recommended additions and reassessed the current status and distribution of each species. Information on species occurrences and distribution was obtained from online data sources, including CalFlora (2000) and the Jepson Online Interchange (Baldwin et al. 2002), to determine whether new or additional locations have been recorded or whether the limits of known ranges have changed. The occurrence of species in sensitive habitats on the UC Santa Cruz campus was determined from the information in the annotated species list developed for the 2002 campus-wide baseline surveys (Jones & Stokes 2004). Information on population sizes was obtained from Jones & Stokes files or was based on personal observations of Jones & Stokes botanists. Little information on population trends or known threats could be obtained, although information on one species was available because of its recent proposal for inclusion in the CNPS Inventory (Ward 2005.).

## Results and Discussion

The results of the review and reassessment are presented in Table 1. Four species meet the CEQA Guidelines for treatment as threatened or endangered species. Sixty-four other species meet the criteria specified above for treatment as "Plants of Interest." Twenty-three species were found not to be locally uncommon, and 26 species were found to be locally uncommon but did not meet any other criteria for treatment as "Plants of Interest." Five of the plant taxa are hybrids, not named species, and therefore were not eligible for designation as special-status species or Plants of Interest.

Within the context of the 2005 LRDP, Plants of Interest will continue to be studied by UC Santa Cruz staff, faculty, and students as funding comes available. Plants of Interest do meet the criteria under CEQA as special-status species and therefore do not need to be evaluated in an EIR. As more information becomes available on these species they may be dropped off this list or elevated in status to be considered a special-status species. Most of the Plants of Interest are associated with sensitive natural communities such as coastal prairie or wetlands and would therefore indirectly receive some protection under CEQA.

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## **Personal Communications**

Ward, Misa. Botanist, California Native Plant Society, Sacramento, CA. September 3, 2004 – email.

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**Table 1.** Evaluation of Additional Special-Status Plants and Plants of Interest Occurring in the Study Area

Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
<b>A) Special-Status Species</b>								
Scotts Valley spineflower <i>Chorizanthe robusta</i> var. <i>hartwegii</i>	Endemic to Scotts Valley in Santa Cruz County	Meadows, grasslands in sandy or mudstone soil (Purisima outcrops)	Federally endangered  Not known from campus	1B	Yes	Yes	Sensitive habitat (coastal prairie)	Yes
Marsh microseris <i>Microseris paludosa</i>	Coastal California from Mendocino to San Luis Obispo County; uncommon	Reported in lower campus mima mound/coastal prairie area. Moist places in valley and foothill grassland	Buck: CNPS List	1B	Yes	Yes	Sensitive habitat (coastal prairie)	Yes
Santa Cruz monkeyflower <i>Mimulus rattanii</i> subsp. <i>decurtatus</i>	Santa Cruz and Monterey Counties; uncommon	Gravelly places on the margins of Chaparral	Buck: CNPS List, Santa Cruz Mountains endemic  Not recently observed on campus	4	Yes	No	Declining populations	Yes
Choris' popcornflower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	Southwest San Francisco Bay Area, northern Central Coast; rare	Mesic areas in Chaparral, and Coastal Prairie	Buck: CNPS List, Santa Cruz Mountains endemic  Not recently located on campus	1B	Yes	Yes	Sensitive habitat (coastal prairie), declining populations	Yes
<b>B) Plants of Interest</b>								
California acaena <i>Acaena pinnatifida</i> subsp. <i>californica</i>	Coastal California from Mendocino County to Santa Barbara County; many collections, but most are old	Grassland, Coastal Prairie, on open or rocky slopes	Buck: uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Trail plant <i>Adenocaulon bicolor</i>	Northwest California, Cascade Range, Sierra Nevada, San Francisco Bay, northern Central Coast, to Canada, north-central U.S.; widespread	Redwood Forest	Buck: southern range terminus	No	No	Yes	Range limit	Yes

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	and common							
Western windflower <i>Anemone oregana</i>	Northwest California, Cascade Range, northern Sierra Nevada; widespread but uncommon	Redwood Forest	Ecosystems West: Regionally rare	No	No	Yes	Small populations	Yes
Wild ginger <i>Asarum caudatum</i>	Klamath Ranges, North Coast Ranges, San Francisco Bay Area, to British Columbia, Montana;	Redwood Forest	Buck: southern range termination	No	No	Yes	Range limit	Yes
Deer fern <i>Blechnum spicant</i>	North Coast, outer North Coast Ranges, northern high Sierra Nevada, San Francisco Bay Area, to Alaska, Eurasia; widespread but not common	Redwood Forest	Buck: southern range termination	No	No	Yes	Small, disjunct populations, range limit	Yes
Grape fern <i>Botrichium multifidum</i>	North Coast, Cascade Range, high Sierra Nevada, Central Coast, Modoc Plateau, circumboreal; common, but usually in small populations	Forest Springs, Underdrained Depressions	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Small, disjunct populations	Yes
Harvest brodiaea <i>Brodiaea elegans</i>	Northwest California, Sierra Nevada, Great Valley, Central Western California; widespread and common	Grassland, Coastal Prairie	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Dwarf brodiaea <i>Brodiaea terrestris</i> subsp. <i>terrestris</i>	Coastal California, Coast Ranges, from Del Norte to San Luis Obispo County; common within range	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes



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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Tufted pine grass <i>Calamagrostis koelerioides</i>	Northwestern California, Central Western California, Peninsular Ranges, to Idaho, Wyoming; widespread but uncommon	Grassland, Mixed Evergreen Forest, Redwood Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	Small, disjunct populations	Yes
California water starwort <i>Callitriche marginata</i>	Throughout California, below 3000 feet; widespread and common	Forest Springs, Underdrained Depressions	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (wetlands)	Yes
Vernal water starwort <i>Callitriche verna</i>	California Floristic Province, Modoc Plateau; circumboreal; widespread, but apparently infrequently collected	Forest Springs, Underdrained Depressions	Buck: southern range terminus  Not recently observed on campus	No	No	Yes	Sensitive habitat (wetlands)	Yes
Yellow mariposa-lily <i>Calochortus luteus</i>	Central and southern Northwest California, Sierra Nevada foothills, Sacramento Valley, Central Western California, northern Channel Islands; widespread and common	Grassland, Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Pussy ears <i>Calochortus tolmiei</i>	Northwestern California, northern Sacramento Valley, northern Central Coast, San Francisco Bay Area, to Washington, Idaho; widespread and common	Mixed Evergreen Forest, Redwood Forest	Buck: southern range terminus	No	No	Yes	Range limit	Yes
Large-flowered star-tulip <i>Calochortus uniflorus</i>	Northwest California, San Francisco Bay Area, Central Coast, to Oregon; uncommon in Central Coast region, more common elsewhere	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Small, disjunct populations	Yes

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Calypso orchid <i>Calypso bulbosa</i>	Northwestern California, southwestern San Francisco Bay Area, circumboreal; widespread but uncommon	Redwood Forest	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Small, disjunct populations, range limit	Yes
Ample-leaved sedge <i>Carex amplifolia</i>	Klamath Ranges, North Coast Ranges, high Cascade Range, high Sierra Nevada, Central Coast, San Francisco Bay Area, Modoc Plateau, to British Columbia, Idaho; widespread but uncommon in CA	Redwood Forest	Buck: southern range terminus  Not recently observed on campus	No	No	Yes	Sensitive habitat (wetlands)	Yes
Olney's sedge <i>Carex gynodynama</i>	North Coast, outer North Coast Ranges, northern Central Coast; uncommon or rarely collected	Redwood Forest, Coastal Prairie, Underdrained Depressions	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Disjunct populations	Yes
Sedge species <i>Carex spp.</i>	Unknown	Mesic forested areas (seeps, drainages)	Ecosystems West: Possibly a previously undescribed species. Taxonomic status currently uncertain.	No	Not at present	Yes	Sensitive habitat (seeps and drainages)	Yes
Paintbrush owl's-clover <i>Castilleja ambigua</i> subsp. <i>ambigua</i>	North Coast, southern North Coast Ranges, northern and central Central Coast; common	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Davy's centaury <i>Centaureum davyi</i>	North Coast, western Central Western California, Santa Cruz Island; common	Grassland, Coastal Prairie, Chaparral, Mixed Evergreen Forest	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Chaffweed <i>Centunculus minimus</i>	North Coast, northern Sierra Nevada Foothills, Sacramento Valley, Central Coast, San Francisco Bay, South Coast; common but	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	infrequently collected							
Giant chinquapin <i>Chrysolepis chrysophylla</i>	Northwestern California, northern Cascade Range, northern high Sierra Nevada, Central Western California, to Washington; common but generally not abundant	Chaparral, Mixed Evergreen Forest, Dwarf Redwood Forest	Buck: southern range terminus	No	No	Yes	Range limit	Yes
Timwort <i>Cicendia quadrangularis</i>	North Coast, outer North Coast Ranges, central Sierra Nevada Foothills, Great Valley, Central Coast, to Oregon, South America; widespread and common (more common inland)	Grassland, Coastal Prairie	Buck: occurring unusually close to the coast	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
California hazelnut <i>Corylus cornuta</i> var. <i>californica</i>	Northwestern California, Cascade Range, Sierra Nevada, San Francisco Bay Area, to British Columbia; widespread and common	Mixed Evergreen Forrest, Redwood Forest	Buck: southern range terminus	No	No	Yes	Range limit	Yes
California oat-grass <i>Danthonia californica</i>	Northwestern California, Cascade Range, Sierra Nevada, Central Western California; widespread and common	Grassland, Coastal Prairie	Buck: Native perennial bunchgrass	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Dichondra <i>Dichondra donelliana</i>	North Coast, northern Sierra Nevada, Central Western California, South Coast, Channel Islands; possibly common but infrequently collected	Grassland	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Small, disjunct populations	Yes
Lowland shooting star Dodecatheon clevelandii subsp. <i>patulum</i>	Northern and central Sierra Nevada foothills, central high Sierra	Grassland	Buck: unusually close to the coast	No	No	Yes	Sensitive habitat (coastal	Yes

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	Nevada, Great Valley, San Francisco Bay Area, Interior South Coast Ranges; common and widespread		Not recently observed on campus				prairie)	
Spreading wood fern <i>Dryopteris expansa</i>	North Coast, outer North Coast Ranges, Central Coast, to Alaska, Canada, Rocky Mountains; common and widespread	Mixed Evergreen Forest	Buck: Rare in the Santa Cruz Mountains  Not recently observed on campus	No	No	Yes	Range limit	Yes
Needle spike-rush <i>Eleocharis acicularis</i>	Throughout California; widespread and common	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Dombey's spikerush <i>Eleocharis montevidensis</i>	Northwestern California, Central Western California, Southwestern California, to Texas, South America; widespread and possibly common but infrequently collected	Forest Springs, Underdrained Depressions	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	Sensitive habitat (wetlands)	Yes
California bottlebrush grass <i>Elymus californicus</i>	North Coast, outer North Coast Ranges, northern Central Coast, Santa Cruz Mountains; uncommon	Mixed Evergreen Forest, Redwood Forest	Buck: CNPS List  Not recently observed on campus	4	No	Yes	Range limit	Yes
Coyote-thistle <i>Eryngium armatum</i>	North Coast, Central Coast; locally common	Grassland, Coastal Prairie, Underdrained Depressions	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Western burning bush <i>Euonymus occidentalis</i> var. <i>occidentalis</i>	Northwestern California, Central Western California, to Washington; uncommon	Redwood Forest	Buck: southern range terminus  Not recently observed on campus	No	No	Yes	Range limit	Yes
Elmer's fescue	Northwestern California,	Mixed Evergreen Forest,	Buck: Uncommon in Santa	No	No	Yes	Small,	Yes

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
<i>Festuca elmeri</i>	Central Western California, to Oregon; rarely collected	Redwood Forest	Cruz County				disjunct populations	
Rattlesnake plantain <i>Goodyera oblongifolia</i>	Northwestern California, Cascade Range, northern and central High Sierra Nevada, southwestern San Francisco Bay, Modoc Plateau, to Alaska, eastern North America, Mexico; widespread but populations of scattered plants	Redwood Forest	Buck: Rare in the Santa Cruz Mountains, southern range terminus	No	No	Yes	Range limit	Yes
Heterocodon <i>Heterocodon rariflorum</i>	California Floristic province, to British Columbia, Montana, Nevada; widespread and common	Underdrained Depressions	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (wetlands)	Yes
Tinker's penny <i>Hypericum anagalloides</i>	Northwestern California, Cascade Range, Sierra Nevada, Central Coast, San Gabriel Mountains, San Bernardino Mountains, Peninsular Ranges, Warner Mountains, to British Columbia, Montana, Nevada; widespread and common	Coastal Prairie, Forest Springs	Ecosystems West: Regionally rare species	No	No	Yes	Sensitive habitat (coastal prairie, wetlands)	Yes
Ground iris <i>Iris macrosiphon</i>	Cascade Range foothills, northern & central Sierra Nevada foothills, interior North Coast Ranges, San Francisco Bay Area; widespread and common	Mixed Evergreen Forest, Redwood Forest	Buck: southern range terminus	No	No	Yes	Range limit	Yes

Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Sickle-leaved rush <i>Juncus falcatus</i>	North Coast, Central Coast, South Coast, to British Columbia, east Asia, Australia; rarely collected	Coastal Prairie	Ecosystems West: Regionally rare species	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Quillwort <i>Isoetes nuttallii</i>	North Coast Ranges, Cascade Range foothills, Sierra Nevada, northern San Joaquin Valley, San Francisco Bay Area, outer South Coast Ranges, South Coast, Peninsular Ranges; widespread and common	Seasonally wet soil in Grassland, Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Flowering quillwort <i>Lilaea scilloides</i>	North Coast, interior North Coast Ranges, Sierra Nevada, Great Valley, Central Western California, South Coast, Peninsular Ranges, Great Basin, western North America; widespread and common	Coastal Prairie, Underdrained Depressions	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Coast trefoil <i>Lotus formosissimus</i>	North Coast, outer North Coast Ranges, northern Central Coast, San Francisco Bay Area, northern outer South Coast Ranges; uncommon	Coastal Prairie, Underdrained Depressions	Buck: Uncommon in Santa Cruz County	4 (proposed)	No	Yes	Populations declining, sensitive habitat (coastal prairie)	Yes
Rush trefoil <i>Lotus junceus</i>	North Coast, outer North Coast Ranges, Central Coast, outer South Coast Ranges; uncommon	Chaparral	Buck: Uncommon in Santa Cruz County	No	No	Yes	Small, disjunct populations	Yes
Torrey's trefoil <i>Lotus oblongifolius</i>	California Floristic Province, Mojave Desert,	Redwood Forest, Forest Springs	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Sensitive habitat	Yes

Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale (wetlands)	Warranted?
<i>var. nevadensis</i>	to Oregon, Nevada, Mexico; widespread and common		Not recently observed on campus  Variety not recognized					
Floriferous monkeyflower <i>Mimulus floribundus</i>	California Floristic Province, to British Columbia, South Dakota, Mexico; widespread and common	Forest Springs, Riparian Habitat	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Sensitive habitat (riparian)	Yes
Pacific panicgrass <i>Panicum acuminatum</i>	Northwestern California, Cascade Range, Sierra Nevada, Great Valley, Central Coast, San Francisco Bay Area, outer South Coast Ranges, Southwestern California; widespread and common	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Gairdner's yampah <i>Perideridia gairdneri</i> ssp. <i>gairdneri</i>	Coastal California from Mendocino to San Luis Obispo County; uncommon	Mesic places or vernal pools in grassland, coastal prairie, and mixed hardwood forest.	Buck: Uncommon in Santa Cruz County. Extirpated in southern portion of its range.  Not recently observed on campus.	4	No	Yes	Sensitive habitat (coastal prairie)	Yes
Dobie spindle-root <i>Perideridia kelloggii</i>	North Coast, Cascade Range Foothills, northern & central Sierra Nevada foothills, Central Coast, San Francisco Bay Area; widespread and common	Grassland, Coastal Prairie, Chaparral	Buck: occurring unusually close to the coast	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
California canary grass <i>Phalaris californica</i>	North Coast, outer North Coast Ranges, Central Coast, San Francisco Bay Area, outer South Coast Ranges, to Oregon;	Mixed Evergreen Forest, Underdrained Depressions	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (wetlands)	Yes

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	common							
Mexican plantain <i>Plantago subnuda</i>	North Coast, Central Coast, San Francisco Bay Area, South Coast, northern Channel Islands, to central Mexico; common but undercollected	Coastal Prairie, Forest Springs	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Thyme-leaved pogogyne <i>Pogogyne serpylloides</i>	North Coast Ranges, northern and central Sierra Nevada foothills, San Francisco Bay Area, outer South Coast Ranges; common but infrequently collected	Underdrained Depressions	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (wetlands)	Yes
Leather-leaf fern <i>Polypodium scolieri</i>	North Coast, outer North Coast Ranges, Central Coast, San Francisco Bay, to British Columbia; widespread and common	Mixed Evergreen Forest, Redwood Forest	Buck: southern range terminus  Not recently observed on campus	No	No	Yes	Range limit	Yes
Black cottonwood <i>Populus balsamifera</i> subsp. <i>trichocarpa</i>	California Floristic Province, Great Basin Floristic Province; widespread and common	Riparian Habitat	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (riparian)	Yes
Water buttercup <i>Ranunculus aquatilis</i> var. <i>capillaceus</i>	California Floristic Province, Great Basin, to Alaska, eastern North America, Mexico; widespread and common	Underdrained Depressions	Buck: unusually close to the coast  Not recently observed on campus	No	No	Yes	Sensitive habitat (wetlands)	Yes



Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Yellow-eyed grass <i>Sisyrinchium californicum</i>	North Coast, northern and central Central Coast, San Francisco Bay Area, to British Columbia; uncommon or undercollected	Forest Springs	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Sensitive habitat (wetlands)	Yes
Ladies' tresses orchid <i>Spiranthes romanzoffiana</i>	Northwestern California, Cascade Range, Sierra Nevada, Central Coast, San Francisco Bay Area, Modoc Plateau, to Alaska, northeastern North America; common	Coastal Prairie	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	Small, disjunct populations, sensitive habitat (coastal prairie)	Yes
Creek clover <i>Trifolium obtusiflorum</i>	Northwestern California, northern and central Sierra Nevada, San Joaquin Valley, Central Western California, South Coast, San Gabriel Mountains, Peninsular Ranges; widespread and common	Forest Springs, Riparian Habitat	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	Sensitive habitat (riparian, wetlands)	Yes
Coast clover <i>Trifolium wormskioldii</i>	Northwestern California, Cascade Range, Sierra Nevada, San Joaquin Valley, Central Western California, South Coast, Peninsular Ranges, Great Basin east of the Sierra Nevada, to British Columbia, Western United States, Mexico; widespread and common	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes

Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Giant wake-robin <i>Trillium chloropetalum</i>	Interior North Coast Ranges, San Francisco Bay Area; common	Redwood Forest, Mixed Evergreen Forest	Buck: southern range terminus  Not recently observed on campus	No	No	Yes	None	Yes
Johnny-tuck <i>Triphysaria eriantha</i> subsp. <i>eriantha</i>	California Floristic Province, to southwestern Oregon; widespread and common	Grassland	Buck: unusually close to the coast  Not recently observed on campus	No	No	No	None	Yes
White hyacinth <i>Triteleia hyacinthina</i>	Northwestern California, Cascade Range, Sierra Nevada, Great Valley, northern and central Central Western California, to British Columbia; widespread and common	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Golden brodiaea <i>Triteleia ixioides</i>	Central & southern Central Coast, southwest San Francisco Bay, western outer South Coast Ranges; locally common in a relatively restricted range	Grassland, Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	Yes	Sensitive habitat (coastal prairie)	Yes
Ithuriel's spear <i>Triteleia laxa</i>	Northwestern California, Cascade Range, Sierra Nevada, Central Western California, Transverse Ranges, to southwestern Oregon; widespread and common	Grassland	Buck: Uncommon in Santa Cruz County	No	No	Yes	None	Yes
Coast nettle <i>Urtica dioica</i> subsp. <i>gracilis</i>	Northwestern California, northern Central Coast, throughout North America; widely ranging	Riparian Habitat	Buck: southern range terminus	No	No	Yes	Sensitive habitat (riparian)	Yes

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	but rarely collected							
<b>C) Other Species</b>								
Annual agoseris <i>Agoseris heterophylla</i>	California Floristic Province; widespread and common	Grassland, Mixed Evergreen Forest	Buck: Unusually close to coast  Not recently observed on campus	No	No	No	None	No
Tarweed fiddleneck <i>Amsinckia lycopsoides</i>	California Floristic Province; widespread and common	Grassland, Mixed Evergreen Forest	Buck: Rare in the Santa Cruz Mountains, unusually close to the coast	No	No	Yes	None	No
Pearly everlasting <i>Anaphalis margaritacea</i>	Northwestern California, Cascade Range, high Sierra Nevada, Central Western California, San Bernardino Mountains, Modoc Plateau; widespread and common	Chaparral, Mixed Evergreen Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No
Manzanita hybrid <i>Arctostaphylos andersonii</i> X <i>A. nummularia</i>	Santa Cruz Mountains where the two species co-occur	Chaparral	Not a named species	No	No	Yes	None	No
Sensitive Manzanita <i>Arctostaphylos nummularia</i>	Coastal Mendocino County, Mount Tamalpais, Santa Cruz Mountains; restricted range, but locally common	Chaparral	Buck: southern range termination, local endemic	No	No	No	Range limit	No
Northwest crimson columbine <i>Aquilegia formosa</i> var. <i>truncata</i>	Coast Ranges, northern Sierra Nevada, to Oregon, Nevada; widespread and common	Redwood Forest	Buck: Uncommon in Santa Cruz County	No	No	Yes	None	No

Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
California pipevine <i>Aristolochia californica</i>	North Coast Ranges, Cascade Range foothills, northern and central Sierra Nevada foothills, Sacramento Valley, San Francisco Bay Area, northern outer South Coast Ranges; widespread and common	Mixed Evergreen Forest	Buck: Rare in the Santa Cruz Mountains  Not recently observed on campus	No	No	Yes	None	No
Oregon grape <i>Berberis nervosa</i>	Northwestern California, northern high Sierra Nevada, San Francisco Bay Area, northern South Coast Ranges, to British Columbia, Idaho; widespread and common	Redwood Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No
Purple owl's-clover <i>Castilleja exserta</i>	Northwestern California, Sierra Nevada foothills, Great Valley, Central Western California, Southwestern California, western Mojave Desert, to Arizona, northwest Mexico; widespread and common	Grassland	Buck: unusually close to the coast  Not recently observed on campus	No	No	No	None	No
Ceanothus hybrid <i>Ceanothus x regius</i>	San Francisco Bay Area, Outer Southern Coast Range	Chaparral, Mixed Evergreen Forest	Buck: Scattered locations in upper campus.  Not a named species.	No	No	Yes	None	No

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Diffuse spineflower <i>Chorizanthe diffusa</i>	Central Coast, western San Francisco Bay Area, western outer South Coast Ranges; locally common	Chaparral	Buck: Uncommon in Santa Cruz County	No	No	No	None	No
Red clintonia <i>Clintonia andrewsiana</i>	North Coast, Klamath Ranges, North Coast Ranges, Central Coast, western San Francisco Bay Area, northern outer South Coast Ranges, to Southwestern Oregon; widespread but populations of scattered plants	Redwood Forest	Ecosystems West: Locally uncommon species	No	No	No	None	No
Spotted coralroot <i>Corallorhiza maculata</i>	Northwestern California, Cascade Range, Sierra Nevada, southwest San Francisco Bay Area, San Gabriel Mountains, San Bernardino Mountains, Peninsular Ranges, to Canada, eastern United States; widespread but populations of scattered plants	Mixed Evergreen Forest, Redwood Forest	Buck: Uncommon in Santa Cruz County	No	No	Yes	None	No
Unspotted spotted coralroot <i>Corallorhiza maculata</i> var. <i>occidentalis</i>	Northwestern California, Cascade Range, Sierra Nevada, southwest San Francisco Bay Area, San Gabriel Mountains, San Bernardino Mountains, Peninsular Ranges, to Canada, eastern United States; widespread but populations of scattered	Mixed Evergreen Forest, Redwood Forest	Buck: Uncommon in Santa Cruz County	No	No	Yes	None	No

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	plants							
Striped coralroot <i>Corallorhiza striata</i>	Northwestern California, Cascade Range, Sierra Nevada, southwest San Francisco Bay Area, to Canada, Mexico; widespread but populations of scattered plants	Mixed Evergreen Forest, Redwood Forest	Buck: southern range terminus  Ranges further south than Santa Cruz Co.	No	No	Yes	None	No
California-aster <i>Corethrogyne filaginifolia</i> var. <i>californica</i>	North Coast, Klamath Ranges, outer North Coast Ranges, southern Sierra Nevada, San Joaquin Valley, Central Western California, Southwestern California, to southwest Oregon, Baja California; widespread and common	Coastal Prairie, Grassland	Buck: Uncommon in Santa Cruz County  Variety no longer recognized	No	No	No	None	No
Torrey's cryptantha <i>Cryptantha torreyana</i> var. <i>pumila</i>	Klamath Ranges, North Coast Ranges, Cascade Range foothills, Sierra Nevada, San Francisco Bay Area, South Coast Ranges, Great Basin, to British Columbia, Montana; widespread and common	Grassland, Chaparral, Mixed Evergreen Forest	Buck: southern range terminus, unusually close to the coast  Not recently observed on campus  Variety no longer recognized	No	No	Yes	None	No
Slender wheatgrass <i>Elymus trachycaulus</i>	Throughout most of California, except the Great Valley; widespread and common	Grassland	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	None	No

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Common horsetail <i>Equisetum arvense</i>	North America, Europe, Asia; widespread and common	Riparian Habitat, Forest Springs	Buck: Uncommon in Santa Cruz County	No	No	No	Sensitive habitat (wetlands)	No
Keeled-club rush <i>Isolepis carinata</i>	North Coast, outer North Coast Ranges, Central Coast, San Francisco Bay, to eastern United States; widespread and common	Grassland, Coastal prairie, Underdrained Depressions	Buck: Rare in the Santa Cruz Mountains	No	No	No	Sensitive habitat (wetlands)	No
Rush hybrid <i>Juncus effusus</i> var. <i>bruneus</i> x <i>Juncus patens</i>	Coastal California	Chaparral, mesic areas in mixed evergreen forest, canyon bottoms	Buck: Scattered occurrences on campus.  Not a named species.	No	No	Yes	Sensitive habitat (wetlands)	No (not a named species)
Woolly malacothrix <i>Malacothrix floccosa</i>	Northwestern California, Cascade Range, northern and central high Sierra Nevada, Sacramento Valley, Central Western California, Western transverse Ranges; widespread and common	Chaparral, Mixed Evergreen Forest	Buck: unusually close to the coast  Not recently observed on campus	No	No	No	None	No
Western melic <i>Melica californica</i>	Northwestern California, Sierra Nevada foothills, Tehachapi Mountains, Central Western California, Western Transverse Ranges; widespread and common	Grassland, Mixed Evergreen Forest	Buck: Uncommon in Santa Cruz County	No	No	Yes	None	No
Alaska oniongrass <i>Melica subulata</i>	Northwestern California, Cascade Range, northern & central Sierra Nevada, Santa Cruz Mountains, northern outer South Coast Ranges, Modoc Plateau, to Alaska, Rocky	Redwood Forest	Buck: southern range terminus	No	No	No	None	No

Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	Mountains; widespread and common							
Slender cottonweed <i>Micropus californicus</i>	California Floristic Province; widespread and common	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	No	None	No
Foothill needlegrass <i>Nassella lepida</i>	Northwestern California, Central Western California, South Coast, Channel Islands, Western Transverse Ranges, western Peninsular Ranges, to Baja California; common	Grassland, Redwood Forest	Buck: Native perennial bunchgrass	No	No	Yes	None	No
Purple needlegrass <i>Nassella pulchra</i>	Northwestern California, northern & central Sierra Nevada foothills, southern Sacramento Valley, Central Western California, South Coast, Channel Islands, Western Transverse Ranges, western Peninsular Ranges, to Baja California; widespread and common	Grassland, Coastal Prairie	Buck: Native perennial bunchgrass	No	No	No	Sensitive habitat (coastal prairie)	No
Baby blue-eyes <i>Nemophila menziesii</i>	California Floristic Province, Mojave Desert; widespread and common	Grassland, Mixed Evergreen Forest, Redwood Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No
Clustered broomrape <i>Orobanche fasciculata</i> var. <i>franciscana</i>	California Floristic Province, Great Basin, to central North America; widespread and common	Chaparral, Mixed Evergreen Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No



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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
			Variety not recognized					
Knobcone pine <i>Pinus attenuata</i>	Northwestern California, Cascade Range, Sierra Nevada, eastern San Francisco Bay Area, South Coast Ranges, San Bernardino Mountains, Peninsular Ranges, Modoc Plateau, to southwest Oregon, Baja California; widespread and common	Chaparral	Buck: occurring unusually close to the coast	No	No	No	None	No
Ponderosa pine <i>Pinus ponderosa</i>	Throughout mountains of California, below 7,500 feet; widespread and common	Grassland, Mixed Evergreen Forest, Redwood Forest	Buck: occurring unusually close to the coast	No	No	No	None	No
Piperia orchid <i>Piperia spp.</i> , possibly <i>Piperia transversa</i>	Unknown	Chaparral margins, dry open woods	Buck: Uncommon in Santa Cruz Mountains  Species not positively identified	No	No	Possibly	None	No

Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Cream cups <i>Platystemon californicus</i>	California Floristic province, western Desert Province, to Oregon, Utah, Arizona, Baja California; widespread and common	Grassland	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No
Licorice fern <i>Polypodium glycyrrhiza</i>	Northwestern California, northern Sierra Nevada foothills, northern and central high Sierra Nevada, Central Coast, San Francisco Bay, to Alaska; widespread and common	Mixed Evergreen Forest, Redwood Forest	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	None	No
California shield fern <i>Polystichum californicum</i>	Outer North Coast Ranges, Central Coast, San Francisco Bay, outer South Coast Ranges, to British Columbia; common	Mixed Evergreen Forest, Redwood Forest	Buck: Rare in the Santa Cruz Mountains  Not recently observed on campus	No	No	Yes	None	No
Dudley's shield fern <i>Polystichum dudleyi</i>	Outer North Coast Ranges, Central Coast, San Francisco Bay, outer South Coast Ranges; common	Redwood Forest	Buck: Rare in the Santa Cruz Mountains	No	No	Yes	None	No
Leafless pyrola <i>Pyrola picta</i> forma <i>aphylla</i>	Northwestern California, Cascade Range, Sierra Nevada, San Francisco bay, outer South Coast Ranges, Transverse Ranges, Peninsular Ranges, Warner Mountains, to southwestern Canada, New Mexico; widespread and common	Mixed Evergreen Forest, Redwood Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
			Form not recognized					
Canyon Live Oak <i>Quercus chrysolepis</i>	California Floristic Province, Oregon, Arizona, Baja California	Chaparral, mixed evergreen forest	CNPS: Found throughout Santa Cruz Mountains in Mixed Evergreen Forest	No	No	No	None	No
Oracle Oak <i>Quercus x morehus</i>	North and South Coast Ranges, Sierra Nevada Foothills, Southwestern California, Baja California	Chaparral	Buck: Sporadic occurrences in Santa Cruz Mountains  Not a named species (hybrid between <i>Quercus kelloggii</i> and <i>Quercus wislizeni</i> )	No	No	Yes	None	No (not a named species)
Santa Cruz gooseberry <i>Ribes menziesii</i> var. <i>senile</i>	North Coast, outer North Coast Ranges, southern Sierra Nevada foothills, Central Coast, San Francisco Bay Area, outer South Coast Ranges, to southwestern Oregon; widespread and common	Mixed Evergreen Forest, Redwood Forest	Buck: Endemic to the Santa Cruz Mountains  Not recently observed on campus  Variety not recognized	No	No	No	None	No

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Ground rose <i>Rosa spithamea</i>	Northwestern California, Central Western California; common	Chaparral, Mixed Evergreen Forest	Ecosystems West: Locally uncommon species	No	No	Yes	None	No
Western raspberry <i>Rubus leucodermis</i>	California Floristic Province (except coast, Great Valley), to British Columbia, Montana, Nevada; widespread and common	Redwood Forest	Buck: southern range terminus  Not recently observed on campus	No	No	Yes	None	No
California fetid adder's tongue <i>Scoliopus bigelovii</i>	Outer North Coast Ranges, San Francisco Bay Area; common	Redwood Forest	Buck: southern range terminus	No	No	No	Range limit	No
Danny's skullcap <i>Scutellaria tuberosa</i>	California Floristic Province (except Great Valley), to Oregon, Baja California; widespread and common	Chaparral, Mixed Evergreen Forest	Buck: unusually close to the coast  Not recently observed on campus	No	No	Yes	None	No
Delores campion <i>Silene verecunda</i> subsp. <i>platyota</i>	Central and southern North Coast Ranges, central and southern Sierra Nevada, San Francisco Bay Area, South Coast Ranges, Transverse Ranges, Peninsular Ranges, to Baja California; widespread and common	Chaparral	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
Meadow rue <i>Thalictrum fendleri</i> var. <i>polycarpum</i>	North Coast, western Klamath Ranges, North Coast Ranges, Sierra Nevada, Central Western California, Transverse Ranges, western Peninsular Ranges, to Washington; widespread and common	Mixed Evergreen Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	Yes	None	No
Hairy fringe pod <i>Thysanocarpus curvipes</i>	California Floristic Province, to British Columbia, Rocky Mountains, Baja California; widespread and common;	Chaparral, Mixed Evergreen Forest	Buck: Uncommon in Santa Cruz County  Not recently observed on campus	No	No	No	None	No
Sugar scoops <i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Northwestern California, northern Central Coast, San Francisco Bay Area, to Alaska, Montana; common	Redwood Forest	Buck: southern range terminus	No	No	No	None	No
Pelican flower <i>Triphysaria eriantha</i> subsp. <i>rosea</i>	North Coast, Central Coast, South Coast; locally common within a relatively restricted range	Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	No	Sensitive habitat (coastal prairie)	No
Smooth owl's-clover <i>Triphysaria versicolor</i> subsp. <i>versicolor</i>	North Coast, Central Coast, to southwest Oregon; locally common within a relatively restricted range	Grassland, Coastal Prairie	Buck: Uncommon in Santa Cruz County	No	No	No	Sensitive habitat (coastal prairie)	No
Triphysaria hybrid <i>Triphysaria eriantha</i> ssp. <i>rosea</i> x <i>Triphysaria versicolor</i> ssp. <i>faucibarbatius</i>	North Coast Ranges	Coastal prairie	Buck: Expected where two species co-occur  Not a named species.	No	No	Yes	Sensitive habitat (coastal prairie)	No (not a named species)
Smooth yellow violet <i>Viola glabella</i>	Northwestern California, Cascade Range, Sierra	Redwood Forest	Ecosystems West: Locally uncommon species	No	No	No	None	No

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Species Name	Distribution/Abundance	Habitat/Potential Habitat on Campus	Comments	CNPS List?	Meets CEQA Guidelines?*	Plants of Interest**		
						Locally Uncommon	Further Rationale	Warranted?
	Nevada, Central Western California, Warner Mountains; widespread and common							
Fremont's star-lily <i>Zigadenus fremontii</i> var. <i>minor</i>	Widespread in California below 3500 feet; widespread and common	Grassland, Coastal Prairie, Mixed Evergreen Forest	Buck: Uncommon in Santa Cruz County  Variety not recognized	No	No	No	Sensitive habitat (coastal prairie)	No

Notes:

\*Section 15380 (d) of the CEQA Guidelines defines endangered, rare or threatened species as the following.

- A species is endangered when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors.
- A species is rare when either the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens, or if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

\*\*Plant of Interest if locally uncommon (5 or fewer known occurrences in Santa Cruz County, and meets one of the following conditions.

- Populations are disjunct from main distribution, or
- Populations are at the limit of the species range, or
- Populations are associated with sensitive habitats, or
- Populations consist of only a few individuals, or
- Populations known to be declining or threatened.