

BOTANICAL REPORT OF SPECIAL STATUS NATIVE PLANT POPULATIONS AND NATURAL COMMUNITIES

APN: 111-121-037

Shelter Cove, Humboldt County, CA

Prepared For:

495 Sea Court
Shelter Cove, CA 95589

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Summary Information

Legal description:	Portions of section 16 of T5S, R1E, H.B. &M.
APN:	111-121-037
USGS 7.5' Quad:	Shelter Cove (4012411)
Parcel size:	0.14 Acres
Dates of survey:	April 21 st and June 11 th , 2022
Surveyed by:	Sarah Mason
Field survey effort:	2.5 hours
Results:	<u>No CRPR 1 or 2 plants were observed</u>

Introduction, Background, and Project Understanding

Purpose and Need

This botanical survey report was prepared to assess potential impacts to botanical resources and summarizes the results of a survey conducted in Shelter Cove, California (APN: 111-121-037). The survey was performed to identify special status plants and sensitive plant communities that could be impacted by operations associated with the subdivision of parcels in accordance with the California Environmental Quality Act (CEQA) using the California Department of Fish and Wildlife's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

Project Description and Setting

The proposed project includes the development of residential housing on a 0.14-acre lot within the coastal zone. The coastal grasslands were historically utilized for grazing starting in the 1850s (Humboldt 2023) and eventually altered for residential development. The project area is dominated by several invasive species.

The parcel address is located at 495 Sea Court, Shelter Cove, California 95589, within the Shelter Cove USGS 7.5-minute quadrangle (Quad code: 4012368:), section 16, T5S, R1E, H.B.&M. The center location of the parcel is 40°1'46.74" N 124°4'42.53" W at an elevation of 41 feet (12.5meters) above sea level (Google Earth Pro, 2023).

Soil, Topography, and Hydrology

Data from *Web Soil Survey* for the project area do not indicate any unique soil types that would provide habitat for rare plants such as serpentinite or peat. The soil consists of gravelly loams with a parent material composed of fluvio-marine deposits derived from sedimentary rock.

The project area is situated along the Pacific Coast adjacent to a coastal bluff, directly 0.3 miles west of the Shelter Cove airport and approximately 25 miles west of Garberville, California. The project area lies within the Mattole River watershed which drains into the Pacific Ocean ~4.0 miles southwest of Petrolia, California. Refer to Figure 1 (Appendix C) for locator map. The project area is mostly flat with a slight west facing aspect ranging from ~29 to ~44 feet in elevation.

Definitions

Special Status Plants and Plant Communities

Special status plants include taxa that are listed under the Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA) in addition to plants which meet the definition of rare or endangered under the California Environmental Quality Act (CEQA). CDFW recommends that plants on California Rare Plant Ranks (CRPR) Lists 1A (presumed extinct or extirpated), 1B (rare, threatened, or endangered in California and elsewhere), 2A (presumed extirpated) and 2B (rare, threatened, or endangered in California but more common elsewhere), or other species that warrant consideration based on local or biological significance, be addressed during California Environmental Quality Act (CEQA) review of proposed projects. Plants of rank 3 and 4, which are under review and watch lists respectively, are addressed by Naiad Biological Consulting, and may warrant consideration under CEQA if potential or cumulative impacts to the plant exist.

CDFW's natural community rarity rankings follow NatureServe's 2012 *NatureServe Conservation Status Assessment: Methodology for Assigning Ranks*, in which all alliances are listed with a global (G) and (S) rank. NCSC are those natural communities that are ranked S1 to S3 (CDFW, 2023), where 1 is critically imperiled, 2 is imperiled, and 3 is vulnerable. However, they may not warrant protection under CEQA unless they are considered high quality. Human disturbance, invasive species, logging, and grazing are common factors considered when judging whether the stand is high quality and warrants protection.

Methods

Pre-Site Visit Data Compilation and Preparation

Prior to conducting the field surveys, the following database information was reviewed to determine the location and types of botanical resources that possibly exist in the survey area. This pre-field investigation included searches of the California Natural Diversity Database (CNDDB, 2023) and the California Native Plant Society's *Inventory of Rare and Endangered Plants* (CNPS, 2023). This list includes CRPR (California Rare Plant Rank) plant species that have been observed within a 9-quadrant search centered on the Shelter Cove quadrangle. Because the Shelter Cove quadrangle is coastal only 6 quadrangles were included in this search. USGS quadrangles within the search area include Shelter

Cove (4012411), Shubrick Peak (4012422), Honeydew (4012421), Ettersberg (4012328), Briceland (4012318), and Bear Harbor (4012388). The results of the project's scoping are presented below in Table 1 (Appendix 1).

Reference Populations

Reference populations were used to determine the timing of seasonally appropriate surveys. The following reference populations of rare plants were used for this project:

Lasthenia californica ssp. *macrantha* located 100 meters north of the project area, along the coastal bluff, was observed in bloom on June 11th, 2023.

Montia howellii located 51 miles northeast of the project area, near Baxter Environmental Camp in Humboldt Redwoods State Park, was observed in bloom April 3rd, 2023.

Botanical Field Survey and Habitat Investigation

The botanical field survey for this project was completed by Sarah Mason. Sarah holds a BS in Botany from Humboldt State University and is currently employed as an Environmental Services Intern with California State Parks for the North Coast Redwoods District. Sarah has worked as an assistant botanist with Caltrans, a Botanical Technician for the Bitterroot and Klamath National Forests, and studied bumble bee communities in the Marble Mountains. Sarah has experience in rare plant identification, protection and monitoring of rare plants, and teaching plant taxonomy at the university level.

Surveys were floristic in nature and conducted in a manner consistent with the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). Plants were identified to the lowest taxonomic level necessary to ensure that they were not a species of concern. Plants not identifiable in the field were identified off site with the use of *The Jepson Manual, Vascular Plants of California*. Other resources used to identify plants can be found in the reference section towards the end of this report.

Botanical surveys were conducted throughout the areas proposed for development operations and the associated road system. Surveys were conducted in an intuitive meander focused on areas likely to provide habitat for rare plant species and/or potentially affected (directly or indirectly) by construction operations. These areas include but are not limited to existing permanent and seasonal roads, new road construction, road points and crossings, forest openings (i.e., meadows, landings, and cut banks), springs and watercourses. Refer to Figure 2 (Appendix C) for the survey routes.

Results

Habitats Observed

No special-status vegetation communities or habitats were observed during the botanical survey of the project area. The project area habitat is a highly altered and disturbed coastal prairie. The site is dominated by several invasive species including velvet grass (*Holcus lanatus*), Italian rye grass (*Festuca perennis*), ice plant (*Carprobrotus edulis*), and pride of madeira (*Echium canadensis*). No

native grasses were observed during the field surveys. See figures 3 and 4 (Appendix D) for example photos of project area and habitats present.

Species Observed

No CRPR 1 or 2 plants were encountered in the project area. Refer to Table 2 (Appendix B) for a list of species observed in the project area. A total of 43 plant taxa were observed in the project area, of which approximately 30% are invasive species.

Conclusion and Discussion

Conclusion

Results of the botanical field survey indicate that negative impacts to sensitive species or sensitive habitats will not occur as a result of the development of residential housing at the specific site surveyed.

Although no listed species were observed during the field survey, it is possible that previous ground disturbances and climate and weather patterns may have affected survey results. Heatwaves or drought during the growing season or in previous years can affect phenology and detection probability. Spring was unusually cool and wet, which may have delayed flowering for several species, making them more difficult to detect. Therefore, documented taxa are not necessarily an exhaustive list of special status species growing in the project area.

Recommendations

Due to the low quality of habitat, from prior land use practices and high coverage of invasive species, no sensitive plant species, communities, or habitats were encountered during the botanical field survey. No further botanical surveys are recommended.

References

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Appendix A. Results from database search

Table 1. Special-Status Plant Species –Shelter Cove and surrounding 7.5 min quadrangles.

Scientific Name	Common Name	CRPR	Blooming Period	Habitat	Microhabitat	Elevation (meters)	Potential of Occurrence
<i>Antennaria suffrutescens</i>	evergreen everlasting	4.3	Jan-Jul	Lower montane coniferous forest (serpentinite)		500-1600	Unlikely
<i>Calamagrostis foliosa</i>	leafy reed grass	4.2	May-Sep	Coastal bluff scrub, North Coast coniferous forest	Rocky	0-1220	Likely
<i>Castilleja litoralis</i>	Oregon coast paintbrush	2B.2	Jun	Coastal bluff scrub, Coastal dunes, Coastal scrub	Sandy	15-100	Likely
<i>Castilleja mendocinensis</i>	Mendocino Coast paintbrush	1B.2	Apr-Aug	Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub		0-160	Somewhat likely
<i>Ceanothus gloriosus</i> var. <i>exaltatus</i>	glory brush	4.3	Mar-Jun (Aug)	Chaparral		30-610	Unlikely
<i>Clarkia amoena</i> ssp. <i>whitneyi</i>	Whitney's farewell-to-spring	1B.1	Jun-Aug	Coastal bluff scrub, Coastal scrub		10-100	Likely
<i>Coptis laciniata</i>	Oregon goldthread	4.2	(Feb)Mar-May (Sep-Nov)	Meadows and seeps, North Coast coniferous forest (streambanks)	Mesic	0-1000	Unlikely
<i>Epilobium septentrionale</i>	Humboldt County fuchsia	4.3	Jul-Sep	Broadleafed upland forest, North Coast coniferous forest	Rocky (sometimes), Sandy (sometimes)	45-1800	Unlikely
<i>Erythronium oregonum</i>	giant fawn lily	2B.2	Mar-Jun(Jul)	Cismontane woodland, Meadows and seeps	Openings, Rocky, Serpentinite (sometimes)	100-1150	Unlikely

<i>Erythronium revolutum</i>	coast fawn lily	2B.2	Mar-Jul(Aug)	Bogs and fens, Broadleafed upland forest, North Coast coniferous forest	Mesic, Streambanks	0-1600	Unlikely
<i>Gilia capitata ssp. pacifica</i>	Pacific gilia	1B.2	Apr-Aug	Chaparral (openings), Coastal bluff scrub, Coastal prairie, Valley and foothill grassland		5-1665	Likely
<i>Hemizonia congesta ssp. tracyi</i>	Tracy's tarplant	4.3	(Mar-Apr)May-Oct	Coastal prairie, Lower montane coniferous forest, North Coast coniferous forest	Openings, Serpentinite (sometimes)	120-1200	Unlikely
<i>Hosackia gracilis</i>	harlequin lotus	4.2	Mar-Jul	Broadleafed upland forest, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Meadows and seeps, North Coast coniferous forest, Valley and foothill grassland	Roadsides, Wetlands	0-700	Somewhat likely
<i>Lasthenia californica ssp. macrantha</i>	perennial goldfields	1B.2	Jan-Nov	Coastal bluff scrub, Coastal dunes, Coastal scrub		5-520	Likely
<i>Lathyrus palustris</i>	marsh pea	2B.2	Mar-Aug	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest	Mesic	1-100	Likely
<i>Leptosiphon latisectus</i>	broad-lobed leptosiphon	4.3	Apr-Jun	Broadleafed upland forest, Cismontane woodland		170-1500	Unlikely
<i>Lilium rubescens</i>	redwood lily	4.2	(Mar)Apr-Aug(Sep)	Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest	Roadsides (sometimes), Serpentinite (sometimes)	30-1910	Unlikely

<i>Listera cordata</i>	heart-leaved twayblade	4.2	Feb-Jul	Bogs and fens, Lower montane coniferous forest, North Coast coniferous forest		5-1370	Unlikely
<i>Mitellastraca caulescens</i>	leafy- stemmed mitrewort	4.2	(Mar)Apr- Oct	Broadleafed upland forest, Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest	Mesic, Roadsides (sometimes)	5-1700	Unlikely
<i>Montia howellii</i>	Howell's montia	2B.2	(Feb)Mar- May	Meadows and seeps, North Coast coniferous forest, Vernal pools	Roadsides (sometimes), Vernally Mesic	0-835	Somewhat likely
<i>Piperia candida</i>	white-flowered rein orchid	1B.2	(Mar- Apr)May- Sep	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest	Serpentinite (sometimes)	30-1310	Unlikely
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	4.2	(Mar)Apr- Aug	Broadleafed upland forest, Coastal prairie, Coastal scrub, North Coast coniferous forest, Riparian woodland	Disturbed areas (often)	0-730	Somewhat likely
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	1B.2	(Mar)May- Aug	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest	Roadsides (often), often roadcuts	15-1230	Somewhat likely
<i>Tiarella trifoliata var. trifoliata</i>	trifoliolate laceflower	3.2	(May)Jun- Aug	Lower montane coniferous forest, North Coast coniferous forest	Edges, Streambanks; moist shady banks	170-1500	Unlikely
<i>Usnea longissima</i>	Methuselah's beard lichen	4.2		Broadleafed upland forest, North Coast coniferous forest	On tree branches; usually on old growth hardwoods and conifers	50-1460	Unlikely

Appendix B. Plant Species Observed

Table 2. List of plant species encountered during surveys.

Botanical Name	Common Name	Origin
Trees		
<i>Hesperocyparis macrocarous</i>	Monterey cypress	Native
Shrubs		
<i>Echium canadensis</i>	pride of madeira	Cal-IPC: Limited
<i>Rubus ursinus</i>	California blackberry	Native
<i>Toxicodendron diversilobum</i>	poison oak	Native
Grasses & Graminoids		
<i>Avena barbata</i>	slender wild oats	Cal-IPC: Moderate
<i>Briza maxima</i>	rattlesnake grass	Cal-IPC: Limited
<i>Bromus catharticus</i>	rescue grass	Non-native
<i>Bromus diandrus</i>	ripgut brome	Cal-IPC: Moderate
<i>Bromus madritensis</i>	foxtail brome	Non-native
<i>Cynosurus echinatus</i>	hedgehog dogtail grass	Cal-IPC: Moderate
<i>Festuca perennis</i>	Italian rye grass	Cal-IPC: Moderate
<i>Holcus lanatus</i>	velvet grass	Cal-IPC: Moderate
<i>Hordeum murinum</i>	foxtail barley	Cal-IPC: Moderate
<i>Poa annua</i>	annual bluegrass	Non-native
<i>Poa compressa</i>	Canada bluegrass	Non-native
<i>Polypogon interruptus</i>	ditch beard grass	Non-native
Forbs		
<i>Carduus pycnocephalus</i>	Italian thistle	Cal-IPC: Moderate
<i>Carpobrotus edulis</i>	iceplant	Cal-IPC: High
<i>Cirsium vulgare</i>	bull thistle	Cal-IPC: Moderate
<i>Erigeron glaucus</i>	seaside daisy	Native
<i>Eschscholzia californica</i>	California poppy	Native
<i>Geranium dissectum</i>	cutleaf geranium	Cal-IPC: Limited
<i>Geranium molle</i>	geranium	Non-native
<i>Grindelia stricta</i> var. <i>stricta</i>	gumplant	Native
<i>Hypochaeris radicata</i>	rough cat's ear	Cal-IPC: Moderate
<i>Lepidium didymum</i>	lesser swine cress	Non-native
<i>Lotus corniculatus</i>	bird's foot trefoil	Non-native
<i>Lysimachia arvensis</i>	scarlet pimpernel	Non-native
<i>Medicago lupulina</i>	black medick	Non-native
<i>Narcissus pseudonarcissus</i>	daffodil	Non-native

<i>Osteospermum fruticosum</i>	trailing African daisy	Non-native
<i>Plantago lanceolata</i>	English plantain	Non-native
<i>Plantago maritima</i>	maritime plantain	Native
<i>Sagina procumbens</i>	matted pearlwort	Native
<i>Senecio minimus</i>	coastal burnweed	Non-native
<i>Senecio vulgaris</i>	common groundsel	Non-native
<i>Silene gallica</i>	catchfly	Non-native
<i>Sonchus asper</i>	prickly sowthistle	Non-native
<i>Sonchus oleraceus</i>	sowthistle	Non-native
<i>Stachys rigida</i> var. <i>rigida</i>	hedge nettle	Native
<i>Trifolium subterraneum</i>	subterranean clover	Non-native
<i>Vicia benghalensis</i>	purple vetch	Non-native
Ferns		
<i>Isolepis cernua</i>	low bulrush	Native

Appendix C. Maps

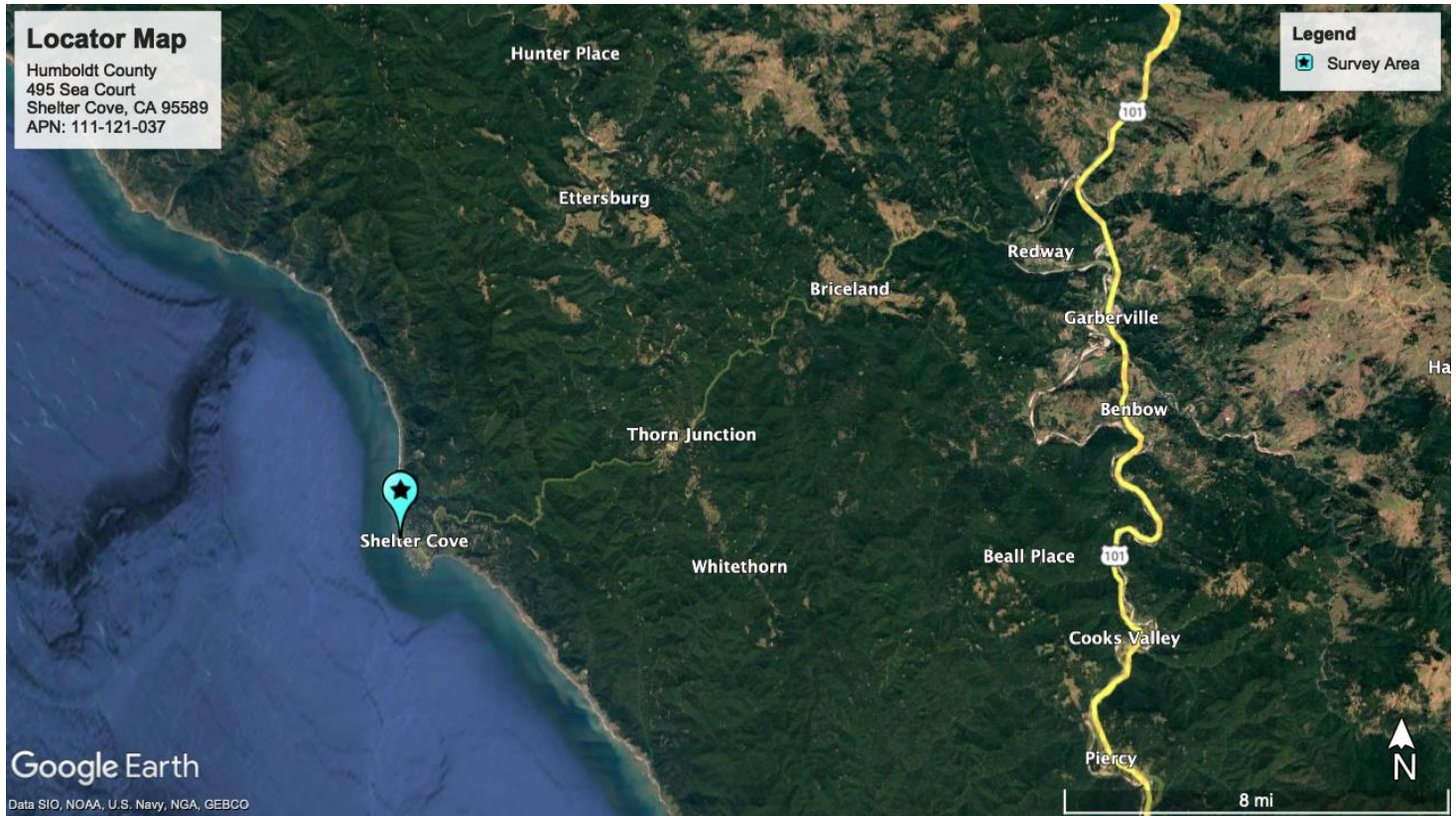


Figure 1. Locator Map of Project Area (blue star) located at 495 Sea Court, Shelter Cove, California in Humboldt County.



Figure 2. Map of project area and survey tracks.

Appendix D. Project Area and Habitat



Figure 3. Survey area, facing east, dominated by several invasive species including velvet grass (*Holcus lanatus*), iceplant (*Carprobotus edulis*), and pride of madeira (*Echium canadensis*).



Figure 4. Project area's western edge, facing east. Evidence of active erosion along coastal bluff.