



May 2026

0 Laurel Road (Assessor's Parcel Number 190-241-05)

Marin County Biological Site Assessment Report

Prepared for Toby Nemec & Christina Chin-Nemec

For Submittal to the County of Marin

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Prepared for

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For submittal to

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ABBREVIATIONS

APN	Assessor's Parcel Number
ASL	Above sea level
BMPS	Best Management Practices
Cal-IPC	California Invasive Plant Species Council
CCC	California Coastal Commission
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRLF	California red-legged frog
ESHA	Environmentally Sensitive Habitat Area
NRCS	Natural Resources Conservation Service
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USGS	United States Geological Survey
Marin County VRG	Marin County <i>Tree and Vegetation Removal in the Coastal Zone</i> (Vegetation Removal Guidance)

1.0 Purpose and Scope

The purpose of this document is to support a County of Marin (County) Planning Department zoning violation at 0 Laurel Road, Bolinas, California, as identified in the Project Location Map, United States Geological Survey (USGS) National Map (Figure 1). This document will assist the County and landowner in correcting a violation for “major vegetation removal” at the parcel. This Biological Site Assessment (BSA) provides a description of former and existing conditions including vegetation assemblages at the undeveloped parcel. This document will assist the county in determining if the vegetation clearing done for property maintenance could have an adverse effect on federally or state listed species or designated critical habitats, pursuant to California Environmental Quality Act (CEQA). An analysis of the biological resources on site allows for the determination of potential impacts associated with property maintenance at the parcel.

In addition, this document will analyze impacts associated with a proposed agricultural barn within the parcel. This document shall assist the county in determining if the proposed project could have an adverse effect on federally or state listed species or designated critical habitats, pursuant to CEQA.

Site visits were conducted on July 1 and September 24, 2025, by botanist/biologist, Julia Benz to document biological resources, identify potential environmentally sensitive habitat areas (ESHAs) within the parcel boundary and within 100 feet of the parcel. Ms. Benz walked throughout the study area, defined as the single parcel at this address, and investigated the drainage ditch at the toe of the parcel. To the northwest of the parcel, habitat on adjacent private properties associated with Alder Creek (often referred to as the Bolinas swale) were documented. Survey of the study area included observing site conditions, recording vegetation and wildlife, and taking representative photographs.

Background research was conducted to further analyze the parcel including the review of USGS 7.5 minute quadrangle and USGS National Maps for Bolinas (Figure 1), Aerial – Project Area with Proposed Barn Footprint and Native Shrub Planting Zone (GoogleEarth 1987-2025) (Figure 2), Natural Resources Conservation Service Soils Maps (NRCS) (Figure 3), National Wetland Inventory Maps (Figure 4), California Natural Diversity Database Bios (California Department of Fish and Wildlife (CDFW) (Figures 5), local coastal program natural resources maps, and the County of Marin’s interactive mapping programs.

1.1 Major Vegetation Removal

In May 2025, the property owners conducted maintenance of the land to remove overgrown invasive vegetation and clean up refuse abandoned by past owners and/or occupants. Based on the dominance of the invasive plant species cape ivy (*Delairea odorata*) and Himalayan blackberry (*Rubus armeniacus*), vegetation was scraped to the dirt surface to remove it. The

ining, invasive cape ivy is ubiquitous in coastal western Marin where disturbance provides opportunity for this species to proliferate and choke the growth of most other plant species. Himalayan blackberry vines similarly take over vacant lands and invade many habitats. Photograph 1 exhibits herbaceous invasive ground cover adjacent to the parcel similar to that which was present within the parcel prior to maintenance.

Photograph 1
Parcel Conditions Before Clearing (May 2025).

Looking north from Laurel Road the property supported cape ivy, California and Himalayan blackberry, and poison oak across its interior and beneath trees. Wooden fencing protrudes from the overgrowth.



With the removal of the vegetation, garbage and refuse were revealed beneath it. Vegetative maintenance facilitated the removal of garbage overtaken by plant growth. The property owners uncovered, removed, and disposed of tires, rotting blankets and carpets, metal springs from automotive and/or trailer suspensions, car undercarriages, greenhouse and/or nursery growing equipment, 55 gallon plastic barrels, PVC pipes, disintegrating plastic tarps, car batteries, rusting car parts, couches, wooden and metal furniture frames, rotting furniture cushions, garbage bags with refuse, and various plastic containers.

Approximately 6,000 square feet (0.13 acres) of ground covering vegetation was removed from the 8,624 square foot (0.198 acre) parcel through the use of a small excavator (Photograph 2).

The clearing of lower limbs from trees was conducted to reduce potential fire hazard from dry or dead wood spanning from the ground to the canopy.

The property owners received a letter from the County dated June 4th indicating a violation of major vegetation removal under Section 20.68.030 and their need to apply for a Coastal Permit. The vegetation removal was conducted for agricultural purposes, per proposed agricultural use described in the following section. The removal of vegetation within and outside the 100-foot setback is analyzed in the following BSA sections as the property owners desire to correct the major vegetation removal violation and proceed with their proposed agricultural development project.

Within the parcel the square footage and acreage is quantified within the parcel in relationship to the 100-foot setback in Table 1. The approximate area of vegetation clearing is provided in comparison to the total acres within and outside the 100-foot setback from the ESHA.

Table 1

Zones within Study Area	Square Feet (Acreage)	Vegetative Maintenance Square Feet
Parcel	8,624 (0.198)	6,000
Parcel Area within 100-foot setback	3,200 (0.073)	1,900
Parcel Area outside 100-foot setback	5,424 (0.125)	4,100

1.2 Proposed Project

Approximately 3,100 square feet of the parcel is proposed to be used for agricultural activities; all agricultural activity is located outside of the 100-foot setback from the Alder Creek ESHA. The proposed project consists of the construction of a 600 square foot barn to be situated at the southern area of the parcel. Access to the barn is proposed via an 11-foot wide gravel road along the southeastern property boundary. A hammerhead turn-around at the southern corner of the parcel will allow for maneuvering within the driveway.

The proposed project is to facilitate vegetables, flowers, and herb gardening and the planting of a fruit orchard within the parcel, as shown on the Nemec Farm Barn, Laurel Road submittal drafted by Alethea Patton Design under separate cover. Three raised vegetable and flower beds; apple, pear, plum, persimmon, pomegranate, and lemon trees; lavender rows; and annual and perennial herbs are proposed to be grown. Beekeeping is also proposed with 3-4 hives to be

maintained on the parcel in conjunction with fruit and vegetable propagation. Planting boxes are proposed in the open center of the parcel where maximum sunlight is optimal for vegetable growth. Fruit trees are proposed around along Laurel Road and south corner. Agricultural items produced at the parcel including produce (vegetables and fruit), bottled honey and honeycomb, and essential oils would be sold at an offsite location seasonally.

Vegetation shall be watered through a gravity fed rain catchment system consisting of two 2,500 gallon water tanks capturing roof runoff from the barn. Water tanks are proposed on the east side of the barn where they can be serviced by local water truck purveyors on the gravel driveway if additional water sources are necessary to irrigate on site agriculture or habitat restoration.

One Monterey pine tree is proposed to be removed to build the barn; Monterey pine trees are not on the list of heritage trees maintained by Marin County *Tree and Vegetation Removal in the Coastal Zone*, Vegetation Removal Guidance (Marin County VRG), (Marin County, 2025b).

Low fencing in the project area is proposed to be installed in accordance with Marin County Guidelines for wildlife friendly fencing within Environmentally Sensitive Habitat Areas (ESHA). Fencing within ESHA areas will include post and rail construction, of no higher than 40 inches, which is highly visible to animals and allows for easy passage through or over. Additionally, a two-rail design with 18 inches of space at the bottom of the fence will allow movement of animals on the ground level within the ESHA buffer.

The removal of the Monterey pine tree is planned to occur outside of the nesting season for birds. Generally, the nesting window extends from February 1 through August 15 therefore removal activities should occur between August 16 to January 31. If it is not possible to time removal activities outside of the nesting season, a nesting bird survey performed by a qualified biologist will be conducted prior to commencing tree removal activities. If active bird nests are observed during the survey, removal activities should be delayed until the young have left the nest.

In accordance with Marin County's sound practices for the replanting of California native species after tree and vegetation removal has occurred, a hedgerow is proposed along the northwestern parcel boundary for habitat restoration and enhancement within the 100-foot setback from Alder Creek. Native replacement shrubs proposed to be planted in the hedgerow include those identified by the Marin County VRG. Coyote brush (*Baccharis pilularis*), coffeeberry (*Frangula californica*), wood rose (*Rosa gymnocarpa*), ocean spray (*Holodiscus discolor*), thimbleberry

(*Rubus parviflorus*), and wild lilac (*Ceanothus* sp.) are suggested for the hedgerow as locally available. Commonly available restoration species have been identified for this plan; however, if species are unavailable at the time of planting, suitable native plant substitutions may be utilized. The restoration plan specifying the quantity and location of each shrub species in the ESHA is exhibited under separate cover within the Nemec Farm Barn, Laurel Road plan set.

A total of 53 shrubs is proposed to be planted on ten to 12 foot centers. One gallon sized shrubs will be spaced to create a natural looking shrub assemblage that over time will form a closed hedgerow (Photographs 3 and 4). Over 1,500 square feet of land within the parcel which occurs within the 100-foot setback from Alder Creek is proposed to be vegetated with native shrub species (Figure 2). Hand watering is proposed from portable water tanks during the dry season between May and September. Irrigation schedule is proposed every three weeks during the first year of establishment, monthly during the second year, and every six weeks during the third year. Irrigation quantities of 15 gallons per shrub should be applied through the filling of planting basins. To reduce and prevent the spread of non-native invasive plants, applicable measures specified in the Marin County VRG would be implemented in the shrub planting zone. Sheet mulching around the shrubs and throughout the vegetable and orchard planting areas is proposed to control regrowth of invasive plant species from the soil's seedbank. With the mild coastal climate of the Bolinas area, vegetation establishment is possible with three years of supplemental irrigation. To prevent deer predation, wire caging is proposed to surround the shrubs for the first few years until they are established to a size and height that can tolerate occasional browsing. The removal of a large non-native cotoneaster in the proposed planting zone is also recommended to give more surface area for California native shrub species.

California Stormwater Quality Best Management Practices (BMPS) would be developed specifically for this project to prevent the movement of sediments from the project area to Alder Creek located downslope to the north. Measures may include coir rolls, landscape fabric, or hydroseeding to prevent sedimentation movement downstream of the project area. The row of shrubs is also intended to intercept sheet flow as it moves northerly and provide soil stabilization into the future.

Photograph 2
Parcel Conditions (July 1, 2025)

Looking north, the parcel supports herbaceous annuals and perennials which are sprouting after vegetative maintenance.



Photograph 3
Proposed California Native Shrub Planting Area

Revegetation area south (uphill) from the property boundary demarked by red arrow and wooden survey lath.



Photograph 4

Proposed California Native Shrub Planting

An assemblage of native shrubs is proposed to be planted in the 100-foot ESHA riparian setback buffer along the northwestern parcel line, as viewed from Alder Road.



2.0 Site Description and Observations

2.1 Existing Conditions

The study area consists of assessor's parcel number (APN) 190-241-05, a 0.198-acre property located at the southern intersection of Alder Road and unimproved Laurel Road in Bolinas, California. The study area is the entire parcel. The parcel is located on the western side of the Bolinas Mesa, is within the local coastal zone, and forms a rectangular shape with a rounded northern corner (Figure 2). Downtown Bolinas is located approximately 1.25 miles east from the study area. Currently the property is vacant land which is overgrown with invasive weeds species and it supports patches of Monterey pine and Monterey cypress trees along the western property boundaries.

Elevations within the parcel range between approximately 67 to 38 feet above sea level (ASL) with the slope dropping from south to north. The parcel slopes downhill from its interface with Laurel Road descending north to Alder Road. A strip of land approximately 25 feet wide occurs between Alder Road and the parcel. An excavated, linear roadside drainage ditch occurs at the toe of the slope between Alder Road and the northwestern property boundary. The southeastern boundary line is demarked by a wooden fence which is falling into the study area. No other fencing or structures occur within the study area. At the time of the survey the ground was vegetated with identifiable herbaceous and perennial plants and mature tree species.

A grated drainage culvert which intercepts flows originating from the properties located to the east of the parcel was identified along Laurel Road. The properties on the east side of Laurel Road have created drainage ditches along the interface between their land and Laurel Road (east side of Laurel). An iron grate protects two to three inch PVC pipes which feed into a drainpipe buried under Laurel Road. The receiving pipe appears to convey storm water in the direction of the study area. No outlet was visible on the parcel, but excavation was not conducted to determine the location of the drainpipe outlet within the study area. It appears that water flowing off the neighboring properties is directed through this culvert system into the parcel instead of flowing down the ditches on the east side of Laurel Road.

Adjacent lands to the south are vegetated with blue gum eucalyptus grove and fragmented Monterey pine woodland with a varying amount of shrub and herbaceous understory cover depending upon shading and glue gum eucalyptus bark debris. To the east of Laurel Road, fully developed residential homesites occur with driveways, lawns, and landscaping. Various sized single-family homes, accessory buildings, barns, sheds, and outbuildings occur on residential and agriculturally zoned lands in the surrounding vicinity. Many parcels which are not developable for residences occur between developed lots.

In the past, the undeveloped study area was possibly used for limited agriculture and to deposit residential garbage including metals, plastics, and batteries as evidenced by the materials removed during vegetation management. Based on historic aerial review (Historic Aerials.com, 2025), the establishment of trees and changes in shrub community can be observed over time. The removal and/or disturbance of scrub vegetation can be identified in 1987 and 2009 aerial photography.

In proximity to the study area, Alder Creek occurs on the northwestern side of Alder Road and willow riparian vegetation grows at the top of the bank. To the north of Alder Road, residential development occurs within 10 feet of Alder Creek and a wooden residential foot bridge spans across the creek bank. To the southwest of the parcel, a wooden shed and miscellaneous wood debris, pallets, plastic sheeting, and domestic garbage occur on the immediately adjacent land. The shed appears to be used as a residential structure and the area to the south/southwest of the parcel appears similar to a homeless encampment.

2.2 Plant Communities and Habitat

Vegetation communities and habitats can be identified based on many CDFW classification systems within the State of California. The closest matching habitat to describe the dominant vegetation within the study area is berry brambles, as named through the Manual of California Vegetation, Second Edition (Sawyer, 2009). This classification is not an exact match as described further below. The trees on and adjacent to the parcel appear to most closely match the Monterey cypress-Monterey pine woodland stands classification. Figure 6, Habitat Map with ESHAs and 100 Foot Setback, shows the approximate property boundary, the extent of the two habitats observed within the parcel, Alder Creek, the polygon formed by the Alder Creek riparian vegetation, the roadside drainage ditch, and the 100-foot overlap into the parcel.

The parcel is mapped by the Marin County Fine Scale Vegetation Web Map, (Marin County, 2025a), containing *Pinus radiata* Plantation Provisional Semi-Natural Association and Shrub Fragment Mapping Units. The Bolinas Lagoon Watershed Vegetation map classifies the parcel as urban or Douglas fir forest.

Marin County notes that for planning purposes site specific analysis is necessary to refine the identification of onsite habitats, as provided in the following section. A list of all vegetation and wildlife species observed within the parcel is provided in Appendix A. Plant nomenclature follows the Jepson Manual; Higher Plants of California (Hickman, 1993).

2.2.1 Berry Brambles

An analysis of photos of the vegetative conditions at the parcel prior to property maintenance identified the presence of *Gaultheria shallon* - *Rubus (ursinus)* Shrubland Alliance habitat with invasive species. The literature describes the berry bramble shrubland alliance (berry brambles) with a dominance of California blackberry or thimbleberry and associates including poison oak. Based on the proportions of California blackberry and poison oak it was determined the vegetation most closely matches this habitat type.

Prior to property maintenance, the majority of the parcel supported clumps of cape ivy (*Delairea odorata*), poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), and Himalayan blackberry which formed two to four foot tall hummocks across the slope between Laurel and Aspen Roads. Pride of Madeira (*Echium candicans*) shrubs, an invasive woody species, were also present within the parcel.

Cape ivy and Himalayan blackberry are not listed within this alliance. Cape ivy was found to be a dominant plant across the site prior to vegetation maintenance, comprising between a third to half the vegetative cover. Himalayan blackberry was present to a lesser extent. Across the Bolinas Mesa and coastal Marin County, the assemblage of these four species commonly grows where disturbance has occurred and the land is left fallow after disturbance (Photograph 5).

After property maintenance, as observed on July 1, 2024, cape ivy, poison oak, California and Himalayan blackberry were observed to resprout across the study area. Herbaceous forb and grass species were recorded within the parcel where cleared ground allowed their germination (Photograph 6). Annual plant species observed newly germinating across the parcel included borage (*Borago* sp.), Italian thistle (*Carduus pycnocephalus*), pride of Madeira, wild radish (*Raphanus sativa*), velvet grass (*Holcus lanatus*), upright veldt grass (*Ehrharta erecta*), scarlet pimpernel (*Lysimachia arvensis*), and poison hemlock (*Conium maculatum*). A few California native plant species were observed including California poppy (*Eschscholzia californica*), wild rose (*Rosa gymnocarpa*), blue wild rye (*Elymus glaucus*), coast tarweed (*Madia sativa*), and manroot (*Marah fabaceae*).

Cape ivy is not recognized in the MCVII catalogue of potential species within natural communities. Himalayan blackberry is recognized in the MCVII and can form its own association when dominant. The California Invasive Plant Species Council (Cal-IPC, 2025) rates both cape ivy and Himalayan blackberry as "high" invasive plant species. Species with a high rating have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive of moderate to high rates of dispersal and establishment, meaning they easily spread and grow in the environment.

Photograph 5

Bolinas Area Berry Bramble Shrubland Alliance (July 1, 2025)

View of berry bramble shrubland alliance habitat on Grove Road, Bolinas, California exhibiting cape ivy threading through poison oak and California blackberry.



Photograph 6

Post Property Management (July 1, 2025)

View north of newly germinated herbaceous and perennial vegetation within the center of the parcel including sprouting California and Himalayan blackberry, cape ivy, and poison oak.



Most are widely distributed ecologically. As observed in coastal Marin, cape ivy has negatively impacted the natural ecosystems with its unimpeded growth, killing California native trees, shrubs, and herbaceous vegetation and preventing the regrowth of native California plants.

2.2.2 Monterey Cypress-Monterey Pine Woodland Stands

Fragments of *Hesperocyparis macrocarpa* - *Pinus radiata* Forest & Woodland Semi-Natural Alliance (Monterey cypress - Monterey pine woodland stands) occur along the south and western side of the parcel on the property boundary. One Monterey cypress occurs at the southern corner of the parcel. Monterey pine trees occur along the western and to the north of the property boundary (Photograph 7). Further to the west the pines have dead limbs in their upper canopy that appear to be caused by the fungus *Fusarium circinatum*, which leads to branch dieback and resinous cankers. The understory beneath the woodland stands is sparse with the accumulation of pine needles suppressing vegetation growth. A few non-native weedy shrubs were documented including cotoneaster (*Cotoneaster* sp.), French broom (*Genista monspessulana*), Kohuhu trees (*Pittosporum tenuifolium*), and coffeeberry (*Frangula californica*), which occur around the parcel boundary. Where other herbaceous plants and vining plants are present, they consist of species identified within the berry bramble habitat.

Photograph 7

Remnant Monterey Pine Woodland Stand (July 1, 2025)

View to the east showing Monterey pine trees along the western parcel boundary. A non-native cotoneaster shrub (left) and a small Kohuhu tree (right) occurs adjacent to the larger trees.



2.3 Animal Populations

The berry bramble and remnant Monterey cypress-Monterey pine woodland stands within the study area support common wildlife species. Before and after vegetation management, the parcel supports habitats which can provide foraging habitat and nesting opportunity for common, local wildlife species. Local, resident populations of native and non-native animal species may occur adjacent to the study area and would be expected to move through the parcel. The Monterey cypress and pine trees could potentially support foraging and nesting passerines commonly found in the region.

Cape ivy produces toxins in its leaves which makes it inedible to mammals, fish, amphibians, and birds, and because of this quality no animals live in cape ivy. Prior to vegetation management, cape ivy occurred across one third to half the site. Foraging on the ground level would have been limited to wildlife due to the dominance cape ivy. The presence of California blackberry and poison oak which produce seeds palatable to birds, indicates the habitat on site is likely to support California native wildlife species such as song sparrow (*Melospiza melodia*), house finch (*Haemorhous mexicanus*), Anna's hummingbird (*Calypte anna*), cedar waxwing (*Bombycilla cedrorum*), California towhee (*Melospiza crissalis*), and American crow (*Corvus brachyrhynchos*).

Raccoons (*Procyon lotor*) and Virginia opossum (*Didelphis virginiana*) could potentially move through the parcel but would not likely find foraging opportunities among the invasive plants. Mule deer (*Odocoileus hemionus*) were observed to move through the parcel during the site visit where they were observed grazing on the recent growth of herbaceous vegetation.

2.4 Wetlands and Waters of the U.S. or State

The Study Area was investigated for the presence of wetlands and waters of the U.S. and/or State as defined and regulated by the United States Army Corps of Engineers (USACE) (USACE, 1987), the California Regional Water Quality Control Board (RWQCB), CDFW, and the California Coastal Commission (CCC) (CCC, 2016). Wetlands and waters of the U.S., features regulated by RWQCB, CDFW, or ESHAs regulated by the CCC were not identified within the parcel boundaries.

As provided in the Marin County LCP (Marin County, 2019):

C-BIO-19 Wetland Buffer Adjustments and Exceptions.

1. A buffer adjustment to less than 100 feet may be considered only if it conforms with zoning and:
 - a. It is proposed on a legal lot of record located entirely within the buffer; or

b. It is demonstrated that permitted development cannot be feasibly accommodated entirely outside the required buffer; or

c. It is demonstrated that the permitted development outside the buffer would have greater impact on the wetland and the continuance of its habitat than development within the buffer; or

d. The wetland was constructed out of dry land for the treatment, conveyance or storage of water, its construction was authorized by a Coastal Development Permit (or pre-dated Coastal Development Permit requirements), it has no habitat value, and it does not affect natural wetlands.

The working understanding of C-BIO-19.1.d. is that it pertains to roadside ditches, among other man made features, within Marin County in the local coastal program area. The “conveyance and storage of water” pertains to the capture of rainfall runoff during storms and the resultant drainage from hillsides that flows into linear features along roadways. Ditches convey and store such water from uplands runoff such that it does not impede travel adjacent to roadways.

A linear, excavated, roadside ditch was identified at the toe of the slope approximately 25 feet north of the parcel boundary along Alder Road. This feature is located entirely outside the parcel boundary. Under C-BIO-19.1.d. Wetland Buffer Adjustments and Exemptions, the Marin County LCP provides a buffer adjustment to areas which are constructed out of dry land for the treatment, conveyance or storage of water which have no habitat value and do not affect natural wetlands. The roadside drainage ditch is not a natural stream channel as it was excavated between the south toe of Alder Road and the adjacent hillside to capture sheet flow runoff so that Alder Road is passable during the rainy season.

The Alder Road roadside drainage ditch is a linear conveyance, not a natural stream channel, and no setbacks from it were evaluated for this BSA.

Alder Creek occurs on the northwestern side of Alder Road (Photograph 8), outside the property boundary. The creek channel meets the minimum criteria to be determined a waters of the U.S. under the jurisdiction of the USACE. It has a defined bed and bank, an ordinary high water line impressed on its bank from water flow, is represented by a dashed blue line on the USGS National Map dataset, and is tributary to the Pacific Ocean, a Traditional Navigable Water.

Vegetation at the top of the bank includes willow (*Salix* sp.) trees that form a canopy along the creek channel and the understory is dominated by veldt grass (*Ehrharta erecta*), an upland species. Riparian vegetation adjacent to the creek does not meet USACE wetland criteria as hydrophytic species are not greater than 50 percent of the vegetation; riparian vegetation is regulated by the CCC and CDFW. An ESHA setback was measured from the top of the creek

bank into the parcel as 100 feet from top of bank is a greater distance into the parcel than 50 feet from the edge of riparian vegetation into the parcel; the LCP ESHA setback requirement is the greater distance between the two measurements.

Photograph 8
Alder Creek (July 1, 2025)

View upstream on Alder Creek located north of the parcel.



2.5 Special Status Plant and Animal Species

The parcel was evaluated to determine if it falls within critical habitat for federally listed species designated by the USFWS. Several databases were searched to determine the potential for occurrence of federally threatened and endangered species in the study area. These included the California Natural Diversity Database (CNDDDB, 2025) as shown in Figure 5, California Native Plant Society online inventory (CNPS, 2025), CalFlora online plant data base (CalFlora, 2025), and the USFWS list of threatened and endangered species occurring within Marin County (see Appendix B for CDFW-CNDDDB summarized data). Critical habitats are shown in the USFWS Critical Habitat Map (Figure 7) as obtained from EnviroMapper (USFWS, 2025). Critical habitat for plants species was not identified in the region; critical habitat for one animal species, the tidewater goby, was identified in the region by the database.

Rare plants and animal species were not identified as potentially occurring in the vicinity of the parcel. While an on-site analysis of vegetation was not conducted prior to the removal of the berry brambles with invasive which conservatively covered a third to half of the parcel, it is possible to determine that the dominance of cape ivy, poison oak, and California and Himalayan blackberry preclude the occurrence of special status plants or animals. The micro habitats required for the occurrence of special status plants and/or animals were not present at the parcel prior to property maintenance. The history of disturbance associated with the deposition of garbage which was distributed across the parcel indicates a level of inhabitation and/or land use that would prevent the continued existence of special status plants or animals on the small-sized property, if potentially suitable habitat was ever present in the recent past. All plants identified within the parcel during the site visit are listed in the attached Table 1.

2.5.1 Special Status Plant Species

Special status plant species include: (i) species that are listed or proposed for listing as threatened or endangered under the federal Endangered Species Act; (ii) species that are listed, or proposed for listing by the state of California as threatened or endangered under the California Endangered Species Act; (iii) plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered in California and elsewhere; and (iv) plant species that meet the definition of rare or endangered under CEQA.

In the general vicinity of the parcel, special status plants that occur in micro habitats which are not present on site are described briefly below:

- Showy Indian clover (*Trifolium amoenum*), federally endangered, is known from an historic occurrence (CalFlora, 1925) on the Bolinas Mesa and this species grows in valley and foothills grasslands and in wetland and riparian habitat, both of which are absent from the parcel.
- Harlequin lotus (*Hosackia gracilis*), CNPS rank 4.2, has been recently recorded on the Bolinas Mesa (Julia Benz, 2024) where it was observed in a vernal pool among native plant species. Based on this botanist's recent observations of the species in its required micro habitat, the parcel was determined to be unsuitable to support it prior to clearing or into the future.

The plant species identified in Appendix B and through database research could not potentially occur within the Study Area. USFWS critical habitat maps do not show the Study Area occurring within any listed plant species mapping unit, as shown in Figure 7.

2.5.2 Special Status Animal Species

Animal species recorded in the CNDDDB (Appendix B) and shown on USFWS Critical Habitat Maps, as potentially occurring within the vicinity of the Study Area include monarch butterfly (*Danaus plexippus*), California red-legged frog (*Rana draytonii*), and tidewater goby (*Eucyclogobius newberry*). Animal species identified by the CNDDDB in the Bolinas area and the surrounding vicinity are shown in Figure 5. No special-status animals were recorded as present within the parcel by CNDDDB Bios mapping or by Marin County.

In summary, California red-legged frog (CRLF) is recorded to inhabit several freshwater drainages that are tributary to the Bolinas Lagoon approximately 1.75 to 2 miles northeast of the parcel. The majority of the Bolinas Lagoon to the east of the Bolinas Mesa is mapped as critical habitat for tidewater goby. Overwintering sites for monarch butterflies are known to occur on the Bolinas Mesa in eucalyptus groves (*Eucalyptus* sp.) and in areas with dense Monterey cypress (*Hesperocyparis macrocarpa*).

2.5.2.1 California Red-legged Frog

The CRLF is a federally listed threatened species and California species of special concern. The historical range of CRLF extended from the vicinity of Point Reyes National Seashore in Marin County southward to northwestern Baja California, Mexico and inland to approximately Redding in Shasta County. The study area is not within the critical habitat range designated under the Endangered Species Act of the CRLF. This frog is known to occur in aquatic and terrestrial habitats, ranging from marshes, streams, lakes, reservoirs, and ponds to other permanent, or near permanent, sources of water.

CRLF are known to breed and have higher success rates in permanent deep-water pools with dense stands of overhanging willows (*Salix* spp.) and emergent vegetation. The CRLF requires 11-20 weeks of permanent water for larval development (egg to tadpole to frog), and they must have access to estivation habitat for their lifecycle requirements (CaliforniaHerps.com, 2025). They are occasionally found in ephemeral streams or ponds as transients. Additionally, they can be found in a variety of aquatic environments including stock ponds and artificial pools with little to no vegetation where water is deep enough for extended periods of time such that breeding can occur. CRLFs usually are observed in or adjacent to water, but they can move long distances over land between water sources during the rainy season.

CRLF are known from the watersheds of various watercourses in Coastal Marin, including Pine Gulch Creek in northern Bolinas approximately 1.75 miles northwest of the study area. CRLF use habitats within the various farms located along Pine Gulch Creek east and west of Horseshoe Hill

Road on the Bolinas Mesa. Breeding CRLFs are mapped north of the north tip of the Bolinas Lagoon within brackish ponds located approximately 3 miles from the study area.

The parcel does not support habitat for CRLF as it lacks aquatic features. Located on a sloping hillside, the study area does not support standing water, creeks, or other features that could potentially attract CRLF to the area. CRLFs have not been identified by the CNDDDB or iNaturalist (iNaturalist, 2025) in the immediate vicinity of the study area. CRLF are presumed absent from the parcel.

2.5.2.3 *Monarch Butterfly*

The USFWS has proposed listing the western monarch butterfly as a threatened species under the Endangered Species Act (ESA) (USFWS, 2024). Proposed critical habitat for the monarch has been identified by the USFWS as shown in Figure 7.

The monarch butterfly (*Danaus plexippus*) migrations, north-south from Canada to Mexico, is dependent upon winter roost sites, typically used between October and February. These extend along the West Coast from Mendocino County in northern California, south to Baja California in Mexico. Winter roosts consist of hundreds or thousands of monarchs in wind protected tree groves close to sources of nectar and water. Trees serving as overwintering sites are protected by policy in the LCP, and the Marin Countywide Plan specifically requires protection of eucalyptus groves that support colonies of monarch butterflies. Monarch butterflies use trees such as eucalyptus, Monterey pine, and Monterey cypress as overwintering sites. Monarchs often use the same overwintering sites year after year, but some overwintering sites are abandoned in favor of others depending on microhabitat changes over time.

As described by the regulatory guidance from USFWS (USFWS, 2024), overwintering sites are characterized by:

- A dense canopy that moderates temperatures to prevent freezing night or high day temperatures,
- protected aspect from high winds;
- tall canopies with protected interior trees;
- high ambient humidity and a nearby water source;
- dappled lighting within in the grove of trees; and
- small trees and shrubs which occur around the perimeter of the grove.

Monarch butterflies are known to use specific groves of eucalyptus and some Monterey cypress trees on the Bolinas Mesa for roosting as shown in CNDDDB Bios (Figures 5B) and the Xerces Society Map of Western Monarch Overwintering Sites (Figure 5C). Neither the CNDDDB nor

Xerces Society has records of monarch roosting within the parcel or in the eucalyptus grove to the immediate south of the parcel. However, the study area parcel occurs on the northwestern edge of the newly mapped proposed critical habitat for monarch butterflies (Figure 7). The mapping of potential critical habitat does not necessarily correspond to functional habitat for the animal in question. Many areas within the polygons of proposed "critical habitat" consist of roads, homes, yards, grasslands, and ruderal vegetation that lack functional habitat to support roosting monarchs, such as found within the project site.

Wintering monarchs have not been observed to use the row of trees on the western parcel boundary where Monterey cypress and pine occur. The trees in the parcel have discontinuous canopies and are open on the north and east such that they are not sheltered from wind. Based on habitat requirements, it appears the temperature and humidity fluctuations within onsite trees would not support roosting monarch butterflies due to the discontinuous canopy configuration. It appears that the eucalyptus trees located immediately south of the study area on the adjacent parcel potentially provide roosting habitat for monarchs with the density of trees forming conditions that could meet microhabitat requirements. Monarchs are not known to roost in the trees on the adjacent parcel currently.

Dominant herbaceous plants on the parcel (cape ivy and poison oak) are not suitable for Monarch feeding. Limited feeding opportunities would be provided by California and Himalayan blackberries within the parcel. Habitat evaluation for the study area resulted in the conclusion that monarch butterflies could potentially pass through the parcel while feeding on flowering plants, but it lacks sheltered groves of trees suitable to support their overwintering.

2.5.2.4 Tidewater Goby

The tidewater goby (*Eucyclogobius newberryi*) is listed as federally endangered and lives in shallow waters of bay and estuaries, in lower, primarily tidal stream reaches. The Bolinas Lagoon is identified as a critical habitat unit which occurs outside the geographical area occupied by the species at the time of their listing. The tidewater goby has not been detected historically in the Bolinas Lagoon. The federal register (78 FR 8745) indicates that the Bolinas Lagoon is not currently occupied by tidewater goby (EPA, 2013). The Bolinas Lagoon critical habitat unit is deemed essential for the conservation of the species as it provides suitable habitat within the potential dispersal distance of nearby occupied units.

No portion of the parcel is suitable to support tidewater goby.

2.6 Environmentally Sensitive Habitat Areas

The study area does not support creek, wetland, or riparian ESHAs. Berry brambles with invasives and Monterey cypress and Monterey pine trees are not considered upland ESHAs.

Alder Creek and its associated riparian vegetation are ESHAs located on the northwestern side of Alder Road outside the parcel. Alder Creek and its riparian vegetation occur within 100 feet of the study area. Within the parcel, a polygon of approximately 3,200 square feet occurs within the 100-foot setback from the top of the creek bank ESHA, as shown in Figure 6. The Alder Creek ESHA setback of 100 feet from top of bank is greater than the 50-foot riparian setback into the parcel and as such the top of bank was used to measure the 100-foot setback buffer.

2.7 California Coastal Zone, State, and Federally Jurisdictional Waters

The Study Area occurs within the California Coastal Zone and is within the Marin County Local Coastal Program Area. The Study Area does not support USACE regulated wetlands or waters, CCC regulated one-parameter wetlands, or ESHAs. Field survey confirmed that wetlands and waters were not present within the parcel. The steep slope of the lands in the study area does not allow or promote the formation of wetlands and/or waters.

A review of the USGS 7.5 quadrangle map, NEPAAssist Geomapper, GoogleEarth Aerials, NRCS, and the National Wetland Inventory substantiates the presence of jurisdictional features within 100 feet of the parcel. Field survey confirmed that waters of the U.S, regulated by the USACE, RWQCB, CCC, and CDFW, were identified within 100 feet of the parcel. The CCC designates Alder Creek and the riparian area as an ESHA (Figure 6).

3.0 Marin County Criteria for Significance

The Marin County Planning Department guidance for determining significance of impacts for a project is discussed below. The analysis of vegetation management that resulted in a violation under “major vegetation removal” and the proposed project are evaluated individually under each significance criteria.

3.1 Significance Criteria

- *Would the project substantially reduce the number or restrict the range of a rare, endangered or threatened plant or animal?*

In summary, the listed rare plants or animals that are known in the region would not have occurred in the past within the parcel, nor would they be expected to occur in the future due to the lack of suitable habitat as determined through review of vegetation on the parcel prior to its clearing. The vegetation observed on site does not provide micro habitats including wetlands, waters, creeks, native grasslands, or woodlands that would support the occurrence of special status plants or animal species.

Vegetation Management

The berry brambles and Monterey cypress and Monterey pine woodland stands within the project area are not used by special status species to complete their lifecycle. Habitats dominated by cape ivy exclude most California native plant species and exclude special status plants. Berry brambles do not provide a micro-climate to support the special status animals known from the region and do not represent potential habitat for CRLF or tidewater goby. Monarch butterflies could have found marginal foraging within approximately 6,000 square feet of berry brambles and invasives. Vegetation management would not substantially reduce the number or restrict the range of monarch butterflies due to the low value of the berry bramble and invasives habitat.

Habitat evaluation of the lands within the study area concludes that no areas of the parcel are potentially suitable to support CRLF, roosting monarch butterflies, or tidewater goby. Vegetation communities at the parcel did not support special status plants or animals prior to vegetation maintenance clearing and as such, the removal of an invasive species that covered up to half the vegetation would not reduce the number or restrict the range of a rare, endangered, or threatened plant or animal.

Proposed Project

Vegetation communities at the parcel do not support special status plant or wildlife populations so the removal of the berry brambles with invasive species, accounting for approximately half of

the 0.198-acre parcel's herbaceous vegetation, would not reduce the number or restrict the range of a rare, endangered, or threatened plant or animal. Construction of a 600 square barn within a 3,100 square foot vegetable, flower, and herb garden and fruit orchard area would involve converting berry bramble habitat with invasive plant species to agricultural use. This conversion would not result in the loss of habitat that supports rare, endangered, or threatened plant or animal species.

Eucalyptus, Monterey pine, and Monterey cypress are non-native invasive trees which when situated close together can create the appropriate microhabitat to support roosting monarch butterflies. The parcel is located on the northern edge of proposed critical habitat for the monarch butterfly. One Monterey pine is proposed for removal for this project and all other trees within the parcel are proposed to remain. The removal of this Monterey pine from the southwestern corner of the property would not result in the loss of functional habitat for monarchs as the specific tree is not contiguous with the adjacent canopy and does not provide the microclimate necessary for monarch roosting. The tree is exposed on the north and east, situated on the northern edge of a eucalyptus grove. The project would not substantially reduce the number or restrict the range of monarch butterflies or their roosting habitat.

Indirect impacts to areas down slope from the project area would be avoided through the use of standard BMPS for all project elements to prevent runoff associated sediments from reaching any waterbody at lower elevations outside the project footprint. The project would not reduce the number or restrict the range of a rare, endangered, or threatened plant or animal species.

- *Would the project cause a fish or wildlife population to drop below self-sustaining levels?*

Vegetation Management

Cal-IPC recommends the removal of plant species identified in their inventory to protect California's environment and economy. Invasive plant species threaten California's natural areas and are listed by Cal-IPC using science-based criteria and expert reviews. Plants on the Cal-IPC Inventory include those currently causing damage and controlling these species is a top recommended priority. Reducing invasive plant species dispersal vectors is a priority in coastal Marin where the uncontrolled growth of plants like cape ivy and Himalayan blackberry, and many others prevent the growth of native plants.

Conditions at the parcel with most of the land supporting the growth of Cal-IPC Inventory species is not conducive to the establishment or growth of California native trees, shrubs, or herbs into the future. Vegetation management that removed berry bramble and invasive species within the parcel allows the establishment of a new baseline where cape ivy and Himalayan blackberry can be controlled to the benefit of the area. Vegetative cover dominated by invasives

is not a preferred habitat for wildlife populations and local birds would find more suitable foraging outside the study area.

Additionally, guidance provided by the Marin County VRG indicates that a Coastal Development Permit approval may be required for undertaking removal activities (Marin County, 2025b). The following removal activities listed on the Marin County VRG are analyzed case by case below for the parcel.

- (1) Heritage trees.
 - On site vegetation management did not remove heritage trees.
- (2) Vegetation that is visually prominent and/or a significant part of the public viewshed.
 - On site vegetation clearing was not visually prominent or a significant part of the public viewshed.
- (3) Any vegetation that is a sensitive species as defined by the state or federal government as threatened, endangered or a species of special concern.
 - Vegetation cleared did not consist of sensitive species defined by the state or federal government as threatened, endangered, or a species of special concern
- (4) Vegetation that is located on a beach, sand dune or within fifty feet of the edge of a coastal bluff.
 - Vegetation cleared was not located on a beach, sand dune, or within fifty feet of the edge of a coastal bluff.
- (5) Vegetation that is located in an environmentally sensitive habitat area (ESHA) or its buffer.
 - It was determined that approximately 3,200 square feet of the parcel lies within the ESHA 100-foot buffer of which 1,900 square feet was cleared of vegetation as discussed in Section 1.1. The vegetation removed within the ESHA buffer included the dominance of two plants listed by Cal-IPC and are identified in the Marin County VRG for removal and replacement.

Habitat for fish species does not exist within the parcel. This habitat assemblage is available surrounding the site and is common throughout the Mesa and coastal Marin County; it does not provide optimal foraging or nesting habitat for local terrestrial wildlife species. Common local terrestrial wildlife populations would not drop below self-sustaining levels due to the clearing of 1,900 square feet of berry bramble with invasive plant species.

Proposed Project

A few resident bird species were observed to move throughout the study area during the site visit and the Monterey pine and Monterey cypress trees could potentially provide nesting habitat for common residential passerines; the project proposes the removal of one Monterey pine tree which could potentially be used by local passerines for nesting. The tree proposed for removal does not occur within the ESHA and is not listed as a heritage species in the Coastal Zone. The Marin County VRG includes prioritization for the removal of fire-hazardous, non-native trees including Monterey pines, provided removal does not require a CDP. Based on the Monterey pine occurring outside the ESHA its removal would not require a CDP.

Habitat surrounding the parcel provides vegetation for the survival of common residential wildlife adapted to rural residential settings. The conversion of approximately 3,100 square feet of land within the parcel from berry bramble habitat to vegetable and fruit gardens and an orchard would not cause a fish or wildlife population to drop below self-sustaining levels. Within the 100-foot setback from the Alder Creek riparian ESHA, low height, two rail fencing would be used such that the passage of residential animals would not be inhibited in the buffer zone.

As prescribed by Marin County VRG, the following preventive measure would be implemented for tree removal:

Tree removal activities are planned to occur outside of the nesting season for birds. Generally, the nesting window extends from February 1 through August 15 therefore removal activities should occur between August 16 to January 31. If it is not possible to time tree removal activities outside of the nesting season, a nesting bird survey performed by a qualified biologist would occur prior to the commencement of tree removal activities. If active bird nests are observed during the survey, removal activities should be delayed until the young have left the nest.

The planting of a California native hedgerow along the northwestern border would increase habitat for common terrestrial wildlife populations in the vicinity of the parcel. The longitudinal growth of a California native hedgerow within the parcel would be to the benefit of local California native resident terrestrial wildlife populations. The berry bramble vegetation with invasive cape ivy does not represent optimal habitat for terrestrial wildlife of the region. The proposed 1,100 square foot native shrub hedgerow would be beneficial impact from project implementation; the increased native cover, foraging habitat, and nesting vegetation would be available for common, local wildlife species in the region. The ongoing prevention of cape ivy growth within the parcel would help reduce the spread of this species in the area in conformance with goals of the LCP.

During all activities involving land disturbance for construction, the applicant will follow all applicable BMPs. With the implementation of BMPs, including the use of straw wattles, covering of stockpile areas and other practices, there would be little possibility of siltation within stormwater runoff that could adversely affect the water in the watershed downhill from the study area.

The conversion of approximately 3,100 square feet of berry bramble with invasives to agricultural use would not cause a fish or wildlife population to drop below self-sustaining levels as habitat that supports wildlife reproduction is limited in the parcel and preventive measures are to be undertaken to ensure no impacts to nesting birds. The conversion of approximately 1,100 square feet of berry brambles with invasives to California native hedgerow habitat would benefit local wildlife.

- *Would the project adversely affect significant riparian lands, wetlands, marshes, and other significant wildlife habitats?*

Significant riparian lands, wetlands, marshes, and other significant wildlife habitats were not identified within the parcel. The land to the south, east and west of the study area lacks wetlands, waters, ponds, and ESHAs. Alder Creek and its riparian vegetation which are ESHAs occur to the north of the parcel within 100 feet of the property lines.

Vegetation Management

Vegetation removal as part of property maintenance occurred within the 100-foot setback from Alder Creek. No impacts to significant riparian lands or other significant wildlife habitat occurred from the removal of onsite berry brambles and non-native Cal-IPC invasive plant species. The removal of invasive species is advocated by the LCP under **C-BIO-6** which recommends the removal of plant species which are listed by the Cal-IPC.

Within the parcel, approximately 1,900 square feet of berry bramble vegetation consisting of cape ivy, poison oak, California and Himalayan blackberry was removed from the 3,200 square foot (0.075 acre) area that lies within the 100-foot setback from the Alder Creek and riparian ESHAs. The removal of berry bramble vegetation and invasives, including up to 50 percent cape ivy, does not represent an activity that significantly affects riparian lands, wetlands, marshes or other significant wildlife habitats. The removal of invasive plants helps prevent them from spreading further into the creek and riparian ESHAs.

Vegetation management allowed parcel cleanup that removed plastics, metals, and treated wood which could potentially contribute to contaminated runoff to the ESHAs. Degrading tarps fragment into smaller pieces over time due to UV radiation and secondary microplastics can be released to the ground around the tarp; these materials were removed from the parcel and disposed of properly. During winter storms, precipitation runoff across the parcel could transport plastic fragments to ESHAs. The removal of the plastic garbage from the parcel is beneficial to the Alder Creek ESHAs.

The removal of the various metal pieces from car undercarriages, frames, suspension, and springs that were abandoned by the former property owner within the parcel reduces the potential for heavy metal runoff. Old car frames, metal springs, and batteries can contaminate soils and water by increasing the amount of lead, cadmium, zinc, and copper where they are located. Parcel clean up to remove the rusting metals is beneficial to the ESHA as it reduces the potential for heavy metal contaminated runoff reaching Alder Creek and the Pacific Ocean.

Vegetation management on the parcel positively affects significant riparian lands, wetlands, marshes, and other significant wildlife habitats primarily through the removal of invasive plant species vectors.

Proposed Project

Wetlands and waters were not identified within the parcel and no impacts to significant riparian lands or other significant wildlife habitat would occur with the proposed installation of the barn, vegetable and flower planting boxes, orchard trees, and California native hedgerow. The project consists of the construction of a 600 square foot barn at the southern corner of the parcel and the use of approximately 3,100 square feet of land for vegetables, flowers, and herb gardening as well as the planting of fruit trees in a small orchard. The construction of a barn would not result in direct adverse impacts to wetlands, waters, ponds, or ESHAs located outside the project area.

BMPS would be developed specifically for this project to prevent the movement of sediments from the project area to Alder Creek located downslope to the north. Measures may include coir rolls, landscape fabric, or hydroseeding to prevent sedimentation movement downstream of the project area. The installation and establishment of a 1,100 square foot hedge row of California native species would beneficially impact habitats within 100 feet of the Alder Creek ESHAs. Vegetation restoration and enhancement within the setback for ESHAs would be a net improvement over existing conditions at the parcel prior to vegetation management.

3.2 Significance Conclusion

The clearing of vegetation within the parcel for which a major vegetation removal violation was issued did not result in significant impacts to special status plants or animals, local wildlife populations, wetlands, waters, or ESHAs. The removal of Cal-IPC listed invasive species is a benefit to the local region as it reduces vectors for invasive plant introduction to the adjacent environment. The installation of a California native shrub hedgerow along the northwestern parcel line would enhance the area within 100 feet of the Alder Creek ESHAs. The proposed project would improve vegetative conditions at the parcel in comparison to those which were recorded prior to its clearing. As planned though use of BMPS, potential runoff and sedimentation related impacts to downhill properties would be prevented.

Based on the evaluation of the three Marin County significance criteria as stated above, the proposed agricultural project will not result in potentially significant adverse biological impacts to the environment.

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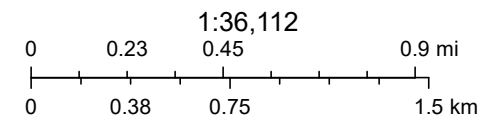
FIGURES

Figure 1. Location Map



September 23, 2025

● 0 Laurel Road, Bolinas, California



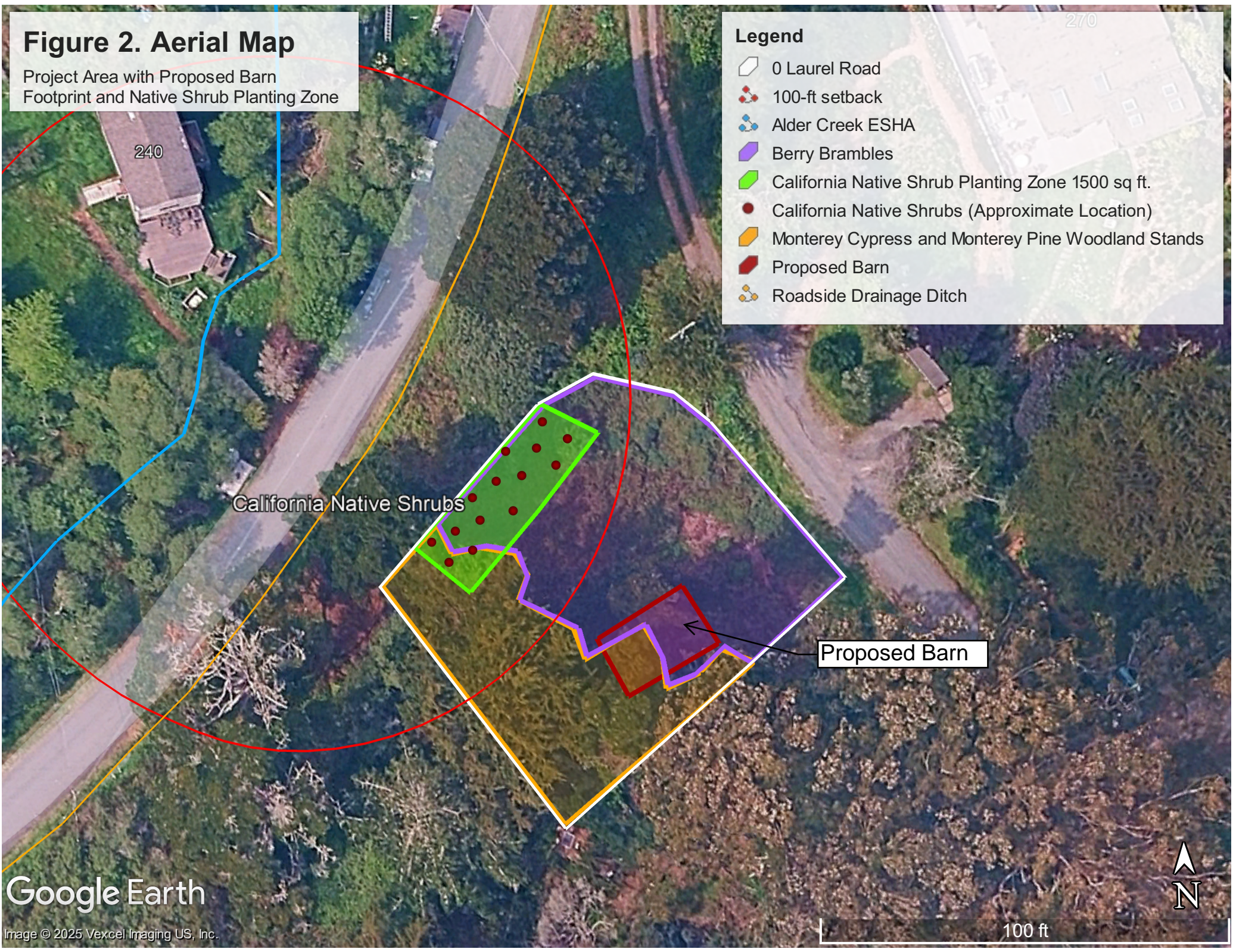
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography

Figure 2. Aerial Map

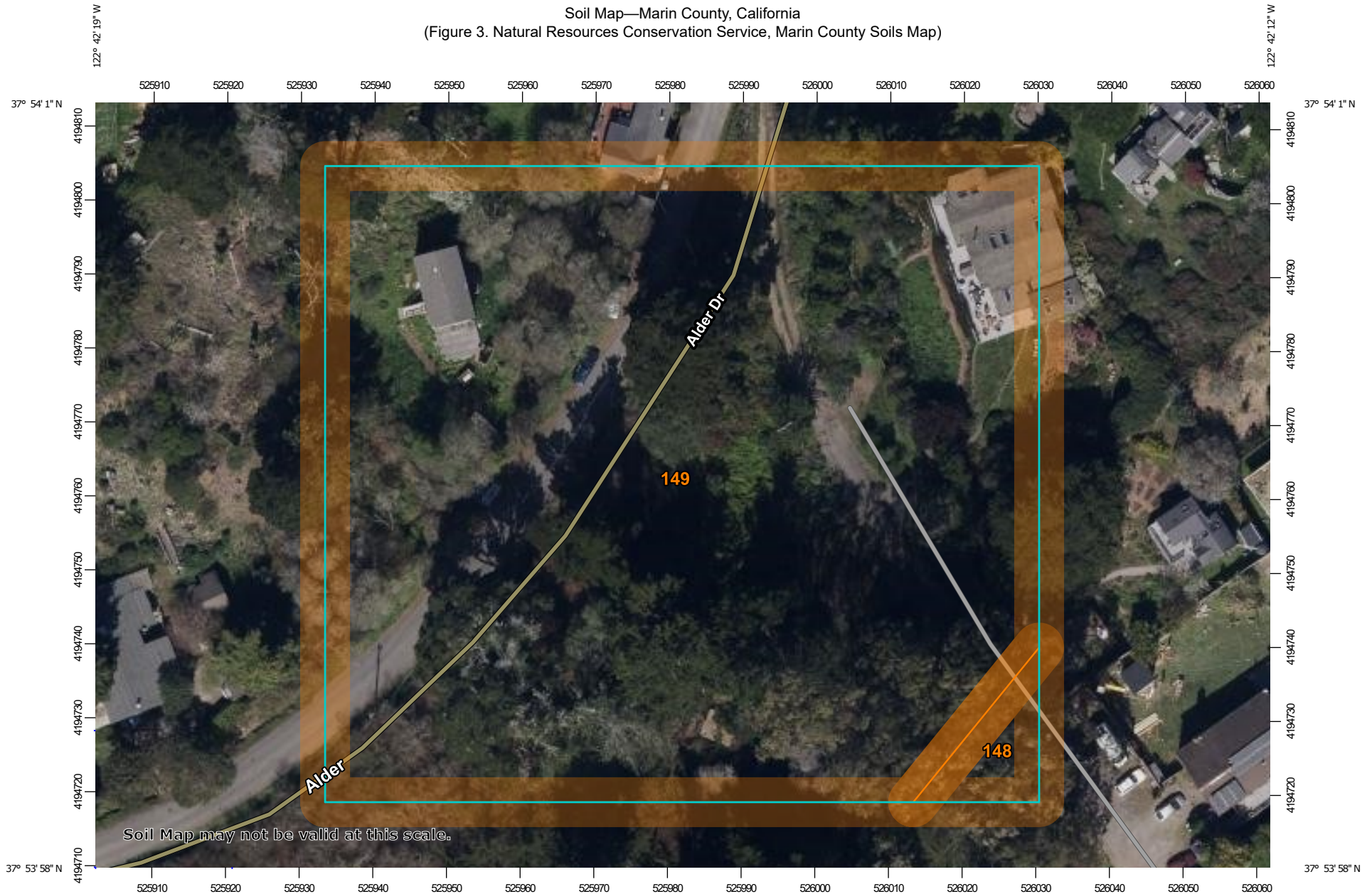
Project Area with Proposed Barn
Footprint and Native Shrub Planting Zone

Legend

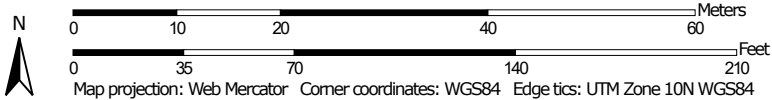
- 0 Laurel Road
- 100-ft setback
- Alder Creek ESHA
- Berry Brambles
- California Native Shrub Planting Zone 1500 sq ft.
- California Native Shrubs (Approximate Location)
- Monterey Cypress and Monterey Pine Woodland Stands
- Proposed Barn
- Roadside Drainage Ditch



Soil Map—Marin County, California
(Figure 3. Natural Resources Conservation Service, Marin County Soils Map)




Map Scale: 1:729 if printed on A landscape (11" x 8.5") sheet.




Soil Map—Marin County, California
 (Figure 3. Natural Resources Conservation Service, Marin County Soils Map)


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Marin County, California
 Survey Area Data: Version 18, Sep 8, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 7, 2021—Mar 31, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
148	Olompali loam, 2 to 9 percent slopes	0.0	2.1%
149	Olompali loam, 9 to 15 percent slopes	2.0	97.9%
Totals for Area of Interest		2.1	100.0%










Figure 4. NWI Map



March 24, 2026

Wetlands

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Figure 5A. CNDDDB Bios Map



353 meters 1159 feet

3/24/2026

Figure 5B. CNDDDB BIOS Map of Western Monarch Butterfly in Project Vicinity



Figure 5C. Xerces Society Map of Western Monarch Overwintering Sites



Figure 6. Habitat Map with ESHAS and 100-Foot Setback

Legend

- 0 Laurel Road
- 100-ft setback
- Alder Creek ESHA
- Berry Brambles
- Monterey Cypress and Monterey Pine Woodland Stands
- Proposed Barn
- Roadside Drainage Ditch
- Willow Riparian ESHA

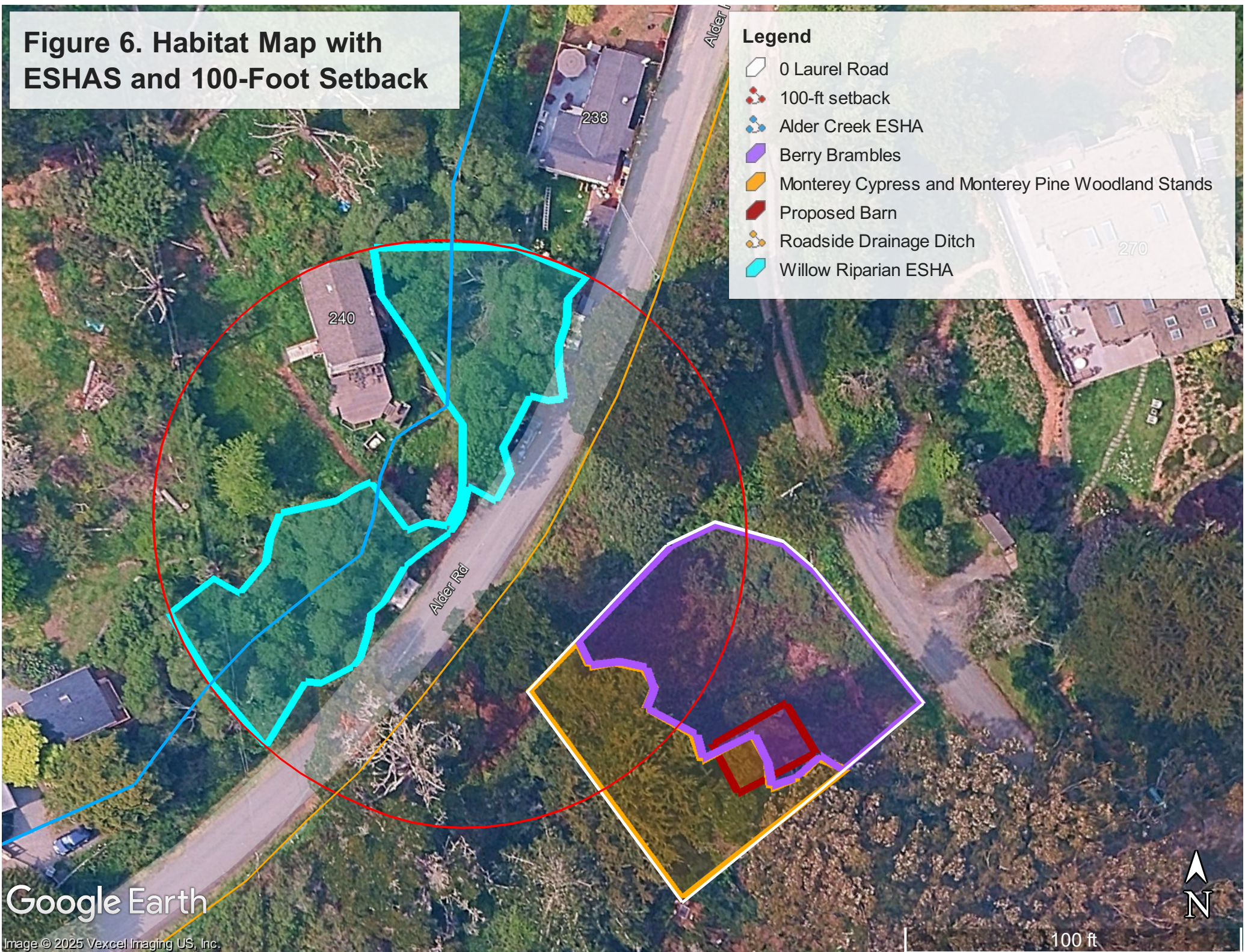


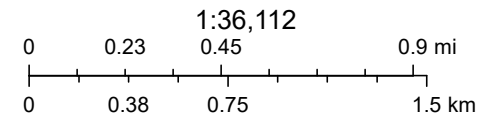


Figure 7. USFWS Critical and Proposed Critical Habitat Map



March 23, 2026

-  Proposed Critical Habitat Features
-  Final Critical Habitat Features



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Vantor

Appendix A

Plant Lists

Plant Species Observed within the Study Area

Scientific Name	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Borago officinalis</i>	Common Borage
<i>Briza maxima</i>	Rattlesnake grass
<i>Bromus hordeaceus</i>	Softchess
<i>Bromus sitchensis</i>	California brome
<i>Cardamine oligosperma</i>	bittercress
<i>Carduus pycnocephalus*</i>	Italian Thistle
<i>Clarkia amoena</i>	Farewell to spring
<i>Cirsium vulgare*</i>	Bull Thistle
<i>Conium maculatum*</i>	Poison Hemlock
<i>Cotoneaster sp.*</i>	Cotoneaster
<i>Crepis capillaris</i>	smooth hawksbeard
<i>Delairea odorata*</i>	Cape Ivy
<i>Echium candicans*</i>	Pride of Madeira
<i>Ehrharta erecta*</i>	Upright Veldt Grass
<i>Eschscholzia californica</i>	California poppy
<i>Festuca perennis*</i>	Perennial Rye Grass
<i>Frangula californica</i>	Coffeeberry
<i>Fumaria capreolata*</i>	White Ramping Fumitory
<i>Hesperocyparis macrocarpa</i>	Monterey cypress
<i>Holcus lanatus*</i>	Common Velvetgrass
<i>Galium aparine</i>	Cleavers
<i>Linum bienne</i>	Common flax
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Lysimachia arvensis*</i>	Scarlet Pimpernel
<i>Madia sativa</i>	Coastal tarweed
<i>Marah fabaceae</i>	California Manroot
<i>Matricaria discoidea</i>	Pineapple weed
<i>Medicago polymorpha*</i>	Burclover
<i>Pittosporum tenuifolium*</i>	Kohuhu
<i>Pinus radiata</i>	Monterey pine

<i>Plantago lanceolata</i> *	English Plantain
<i>Raphanus sativa</i> *	Wild Radish
<i>Rosa gymnocarpa</i>	Woodland rose
<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Rubus ursinus</i>	California Blackberry
<i>Rumex conglomeratus</i>	Golden dock
<i>Silybum marianum</i> *	Milkthistle
<i>Sonchus asper</i> *	Sowthistle
<i>Stipa miliaceae</i> var. <i>miliaceae</i>	Smilo grass
<i>Toxicodendron diversilobum</i>	Poison oak
<i>Trifolium repens</i>	White clover
<i>Veronica peregrina</i>	neckweed
<i>Vicia sativa</i> *	Vetch

*= Non-native plant species.

¹Scientific nomenclature is based on the *Jepson eFlora* (Jepson Flora Project 2023) and the wetland indicator status is based on the *National Wetland Plant List* 2016 (Lichvar et al. 2021). When the nomenclature differs between these two sources, the *Jepson eFlora* taxon is reported first and the Lichvar (et al. 2021) taxon is provided in brackets.²Wetland status indicator based on the *National Wetland Plant List* (Lichvar 2021) for the Arid West 2021 Regional Wetland Plant List.

Animal Species Observed within the Study Area

Scientific Name	Common Name
<i>Aphelocoma californica</i>	California Scrub-jay
<i>Psaltriparus minimus</i>	Bushtit

Appendix B

CNDDDB Special Status Species



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad IS (Bolinas (3712286))

<i>Dicamptodon ensatus</i>		Element Code: AAAAH01020	
California giant salamander			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3
	State: None		State: S2S3
	Other: CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened		
Habitat:	General: KNOWN FROM WET COASTAL FORESTS NEAR STREAMS AND SEEPS FROM MENDOCINO COUNTY SOUTH TO MONTEREY COUNTY, AND EAST TO NAPA COUNTY.		
	Micro: AQUATIC LARVAE FOUND IN COLD, CLEAR STREAMS, OCCASIONALLY IN LAKES AND PONDS. ADULTS KNOWN FROM WET FORESTS UNDER ROCKS AND LOGS NEAR STREAMS AND LAKES.		

Occurrence No.	72	Map Index: 58676	EO Index: 98436	Element Last Seen:	1931-11-24
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1931-11-24
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2016-02-12

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.94005 / -122.63959	Accuracy:	1/10 mile
UTM:	Zone-10 N4199224 E531668	Elevation (ft):	600
PLSS:	T01N, R07W, Sec. 09, NW (M)	Acres:	0.0

Location: LAGUNITAS CREEK NEAR ALPINE DAM.
Detailed Location: SPECIMEN LOCALITY STATED AS ALPINE DAM.
Ecological: DAM WAS COMPLETED IN 1919. NUSSBAUM CLASSIFIED THESE AS BELONGING TO A UNIQUE SOUTH SUBGROUP BASED ON MORPHOMETRIC ANALYSIS.
General: ONE COLLECTED ON 1 FEB 1931 AND ONE COLLECTED ON 24 NOV 1931.
Owner/Manager: MARIN MWD

Occurrence No.	73	Map Index: 96673	EO Index: 98438	Element Last Seen:	1959-08-25
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1959-08-25
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2016-02-12

Quad Summary: San Rafael (3712285), Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.95768 / -122.63156	Accuracy:	3/5 mile
UTM:	Zone-10 N4201183 E532366	Elevation (ft):	800
PLSS:	T01N, R07W, Sec. 04 (M)	Acres:	0.0

Location: LILY LAKE AND VICINITY OF LIBERTY GULCH AND NORTH SIDE OF ALPINE LAKE, ABOUT 6 MILES WSW OF SAN RAFAEL.
Detailed Location: MOST SPECIFIC LOCATION WAS LILY LAKE. OTHER SPECIMEN LOCATIONS WERE STATED AS 0.5 MILE NORTH OF ALPINE LAKE, AND ALPINE LAKE.
Ecological: ALPINE DAM ON LAGUNITAS CREEK COMPLETED IN 1919 AND RAISED TWICE MORE FURTHER INCREASING THE CAPACITY OF ALPINE LAKE. SALAMANDERS LIKELY USE TRIBUTARIES UPSTREAM FROM THE LAKE.
General: ONE COLLECTED ON 14 APR 1940 (ALPINE LAKE). ONE COLLECTED ON 12 OCT 1955 (LILY LAKE). ONE COLLECTED ON 25 AUG 1959 (NORTH OF ALPINE LAKE). NUSSBAUM ANALYZED 2 OF THESE TRANSFORMED SPECIMENS AND PUT THEM IN THE UNIQUE SOUTH SUBGROUP.
Owner/Manager: MARIN MWD



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California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	74	Map Index:	97178	EO Index:	98441	Element Last Seen:	2015-08-20
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		2015-08-20	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2015-08-25	
Quad Summary:	San Rafael (3712285), Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.88693 / -122.62558		Accuracy:	specific area			
UTM:	Zone-10 N4193336 E532922		Elevation (ft):	400			
PLSS:	T01N, R07W, Sec. 34, NW (M)		Acres:	10.0			
Location:	WEBB CREEK AT HIGHWAY 1, ABOUT 1 MILE SSE OF THE TOWN OF STINSON BEACH.						
Detailed Location:	SITE MONITORING WAS PERFORMED HERE FOR CULVERT REPAIR ALONG WEBB CREEK AT HIGHWAY 1. AREA IS ACCESSIBLE BY STEEP RAVINE TRAIL.						
Ecological:	SMALL, CLEAR CREEK. SITE USED FOR FORAGING AND REARING. AREA MANAGED AS OPEN SPACE AND RECREATION; OBVIOUS OFF-TRAIL HIKING NEAR CREEK. LITTLE (1-2 INCH) FISH ALSO IN POOLS IN AUG 2015; NO OTHER AMPHIBIANS SEEN.						
General:	13 LARVAE WERE FOUND AND RELOCATED AWAY FROM CONSTRUCTION SITE DURING BIOLOGICAL MONITORING ON 12 AUG 2013. 10 LARVAE WERE FOUND ACROSS ABOUT 100 FEET OF STREAM IN ABOUT 1 HOUR ON 20 AUG 2015.						
Owner/Manager:	DPR-MOUNT TAMALPAIS SP						
Occurrence No.	171	Map Index:	99052	EO Index:	100573	Element Last Seen:	2001-10-03
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2001-10-03	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2016-02-05	
Quad Summary:	Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.92465 / -122.66021		Accuracy:	non-specific area			
UTM:	Zone-10 N4197510 E529862		Elevation (ft):	500			
PLSS:	T01N, R07W, Sec. 17 (M)		Acres:	103.0			
Location:	MORSES GULCH, EAST OF BOLINAS LAGOON, NW OF STINSON BEACH, GOLDEN GATE NATIONAL RECREATION AREA.						
Detailed Location:	EXACT LOCATION IN MORSES GULCH UNKNOWN; INCIDENTAL DETECTION MADE DURING FISH SURVEYS BY ELECTROFISHING. MAPPED NON-SPECIFICALLY TO THE GULCH.						
Ecological:	YOUNG OF YEAR STEELHEAD WERE ALSO PRESENT.						
General:	ONE OR MORE DICAMPTODON, PROBABLY LARVA, FOUND DURING FISH SURVEYS OF MORSES GULCH ON 3 OCT 2001.						
Owner/Manager:	NPS-GGNRA						



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California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	175	Map Index:	99101	EO Index:	100623	Element Last Seen:	2002-08-21
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2002-08-21	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2016-02-05	
Quad Summary:	Bolinas (3712286), Double Point (3712287)						
County Summary:	Marin						
Lat/Long:	37.98966 / -122.74968		Accuracy:	1/10 mile			
UTM:	Zone-10 N4204697 E521980		Elevation (ft):	300			
PLSS:	T02N, R08W, Sec. 28, NW (M)		Acres:	0.0			
Location:	OLEMA CREEK, 0.7 MILE SE OF FIVE BROOKS TRAILHEAD, JUST WEST OF HIGHWAY 1, POINT REYES NATIONAL SEASHORE.						
Detailed Location:	ABOUT 175 METERS OF CREEK WERE SURVEYED FOR FISH.						
Ecological:	STEELHEAD, COHO, SCULPIN, AND STICKLEBACK SPECIES ALSO DETERMINED TO BE PRESENT.						
General:	ONE OR MORE DICAMPTODON FOUND DURING FISH SURVEYS OF A STRETCH OF OLEMA CREEK ON 21 AUG 2002.						
Owner/Manager:	NPS-POINT REYES NS						

Occurrence No.	227	Map Index:	99212	EO Index:	100742	Element Last Seen:	1963-03-02
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1963-03-02	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2016-02-12	
Quad Summary:	Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.93804 / -122.68402		Accuracy:	non-specific area			
UTM:	Zone-10 N4198988 E527765		Elevation (ft):	500			
PLSS:	T01N, R08W, Sec. 12, E (M)		Acres:	100.0			
Location:	PIKE COUNTY GULCH, JUST EAST OF BOLINAS ROAD, NE SIDE OF BOLINAS LAGOON, NORTH OF BOLINAS.						
Detailed Location:	AREA PREVIOUSLY THE ALAN GALLOWAY ESTATE, NOW PART OF AUDUBON CANYON RANCH.						
Ecological:	USING MORPHOMETRICS, NUSSBAUM ANALYZED 5 TRANSFORMED AND 1 LARVAL SPECIMEN AND CATEGORIZED THEM AS BELONGING TO THE UNIQUE SOUTH SUBGROUP OF D. ENSATUS.						
General:	SIX COLLECTED ON 4 DEC 1962, FOUR COLLECTED ON 5 JAN 1963, AND NINE COLLECTED ON 2 MAR 1963.						
Owner/Manager:	AUDUBON CANYON RANCH						

<i>Rana draytonii</i>		Element Code: AAABH01022	
California red-legged frog			
Listing Status:	Federal: Threatened	CNDDDB Element Ranks:	Global: G2G3
	State: None		State: S2S3
	Other: CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable		
Habitat:	General: LOWLANDS AND FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.		
	Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.		



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Occurrence No.	977	Map Index: 70392	EO Index: 71286	Element Last Seen:	2007-04-02
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2007-04-02
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2007-11-01
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.91523 / -122.69185		Accuracy:	80 meters	
UTM:	Zone-10 N4196454 E527085		Elevation (ft):	15	
PLSS:	T01N, R08W, Sec. 13 (M)		Acres:	0.0	
Location:	ADJACENT TO OLEMA-BOLINAS ROAD, 0.25 MILE NORTH OF THE INTERSECTION WITH MESA ROAD, BOLINAS.				
Detailed Location:	SITE IS LOCATED AT MILE MARKER 1.56 ON OLEMA-BOLINAS ROAD.				
Ecological:	HABITAT CONSISTS OF A ROADSIDE DRAINAGE DITCH WITH SHALLOW PONDING AND FRESHWATER VEGETATION, INCLUDING CATTAILS, WATER SMARTWEED, PACIFIC OENANTHE, AND PENNYROYAL.				
General:	2+ OBSERVED ON 30 MAR; 1 OBSERVED AND PHOTOGRAPHED ON 2 APR 2007.				
Owner/Manager:	MRN COUNTY				
Occurrence No.	1050	Map Index: 74429	EO Index: 75423	Element Last Seen:	2017-06-22
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2017-06-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-05-15
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.93348 / -122.70675		Accuracy:	specific area	
UTM:	Zone-10 N4198476 E525770		Elevation (ft):	142	
PLSS:	T01N, R08W, Sec. 11 (M)		Acres:	22.0	
Location:	PARADISE VALLEY, 0.4 MI SW OF HWY 1 AT OLEMA-BOLINAS RD & 0.4 MI SE OF THE CONFLUENCE OF MCCORMICK & PINE GULCH CREEKS.				
Detailed Location:	2006 DETECTIONS IN GREEN POND. 2015 DETECTIONS N OF GREEN POND, IN SEASONAL WETLAND WHICH WAS GRADED & EXCAVATED IN 2015 TO CREATE AN ADDITIONAL STORAGE POND "1B" ON FRESH RUN FARM. 2017: DETECTED IN POND 1A/FRESH RUN POND (NW-MOST POLYGON)				
Ecological:	2006: POND IN A WET DRAINAGE W/SIGNIFICANT AMOUNT OF HIGH QUALITY CRLF NON-BREEDING HABITAT IMMEDIATELY NORTH; MANY BULLFROGS OBSERVED. 2017: POND 1A DEWATERED FOR REPAIRS; SALVAGED TADPOLES RELEASED IN GREEN POND.				
General:	6 ADULTS OBSERVED ON MAR-JUL 2006 DURING NIGHT SURVEYS. 2 ADULTS & 7 JUVENILES CAUGHT IN JUN 2015 PRIOR TO CONSTRUCTION & RELEASED IN PINE GULCH CREEK JUST DOWNSTREAM. 349 LARVAE CAUGHT & RELEASED, MAY-JUN 2017.				
Owner/Manager:	PVT				



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California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	1051	Map Index: 74434	EO Index: 75430	Element Last Seen:	2017-06-13
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2017-06-13
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-06-24
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.91789 / -122.69878		Accuracy:	non-specific area	
UTM:	Zone-10 N4196748 E526475		Elevation (ft):	50	
PLSS:	T01N, R08W, Sec. 14, SE (M)		Acres:	36.0	
Location:	STAR ROUTE FARM PONDS & MIDDLE PINE GULCH CREEK, S OF LAUFF RANCH RD, ABOUT 0.1-0.4 MI W OF OLEMA-BOLINAS RD, BOLINAS.				
Detailed Location:	2006: MIDDLE PINE GULCH CREEK & WEBER POND. MIDDLE PINE GULCH CREEK LOCATION IS NNE OF WEBER POND. 2015: NEW POND BUILT (ON WEBER POND SITE?) KNOWN AS STAR ROUTE POND/POND 3A. 2017: SALVAGED TADPOLES RELOCATED TO POND 3B (ON SAME PROPERTY).				
Ecological:	2006: MIXED VEGETATION AROUND POND INCLUDED CATTAIL STANDS & SCATTERED WILLOWS; BULLFROGS PRESENT. 2015: FROGS RELOCATED DURING WATERSHED ENHANCEMENT PROJECT; EXISTING POND GRADED, NEW LARGER POND BUILT. 2017: POND 3A DRAINED FOR REPAIRS.				
General:	25 ADULTS & 2 SUBADULTS OBSERVED MAY-JUL 2006. 2 ADULTS, 54 JUVENILES, & 350 TADPOLES CAUGHT IN POND & RELEASED IN CREEK JUL-AUG 2015. ABOUT 9000 TADPOLES WERE RELOCATED FROM POND 3A IN JUN 2017.				
Owner/Manager:	UNKNOWN				
Occurrence No.	1127	Map Index: 75513	EO Index: 76517	Element Last Seen:	2008-03-07
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2008-03-07
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-06-16
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.93485 / -122.69589		Accuracy:	80 meters	
UTM:	Zone-10 N4198631 E526723		Elevation (ft):	30	
PLSS:	T01N, R08W, Sec. 12, SW (M)		Acres:	0.0	
Location:	POND ON THE NORTH SIDE OF HWY 1 AT THE NORTH TIP OF BOLINAS LAGOON, GOLDEN GATE NATIONAL RECREATION AREA.				
Detailed Location:	FELLERS SITE ID IS P-147.				
Ecological:					
General:	3 JUN 1996: 1 ADULT & 1 LARVA. 6 JAN 1997: "48,203" EGGS. 2 FEB 2000:"9,400" EGGS. 11 JAN 2001: 3 ADULTS. 16 JAN 2002: 67 LARVAE & "3" EGGS. 17 MAY 2005: 1 LARVA. 19 APR 2006: 7 LARVAE. 7 MAR 2008: 8 LARVAE.				
Owner/Manager:	NPS-GGNRA				



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California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	1128	Map Index: 75516	EO Index: 76520	Element Last Seen:	2001-10-26
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2001-10-26
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-06-16
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.92667 / -122.73515		Accuracy:	80 meters	
UTM:	Zone-10 N4197712 E523275		Elevation (ft):	30	
PLSS:	T01N, R08W, Sec. 16, E (M)		Acres:	0.0	
Location:	ARROYO HONDO CREEK, 0.12 MI FROM THE PACIFIC OCEAN, POINT REYES NATIONAL SEASHORE.				
Detailed Location:	FELLERS SITE ID IS P-114.				
Ecological:					
General:	1 ADULT OBSERVED ON 26 OCT 2001.				
Owner/Manager:	NPS-POINT REYES NS				
Occurrence No.	1136	Map Index: 75545	EO Index: 76551	Element Last Seen:	2008-05-14
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2008-05-14
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-06-18
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.97301 / -122.73521		Accuracy:	specific area	
UTM:	Zone-10 N4202854 E523255		Elevation (ft):	400	
PLSS:	T02N, R08W, Sec. 33, NW (M)		Acres:	15.0	
Location:	WEST SIDE OF HWY 1, 2.33 AIR MI NNW OF WOODVILLE, POINT REYES NATIONAL SEASHORE.				
Detailed Location:	SITE IDS = P-372: OC; "OLEMA CREEK", P-063: MP; "MARSH POND" AND P-065: OVTP; "OLEMA VALLEY TRAIL POND".				
Ecological:					
General:	OC: '97; 3 ADULTS & 1 SUBADULT. MP: EGGS OBS IN '95-'97 & '00-'02. LARVAE OBS IN '93, '95, '05, '06 & '08. ADULTS OBS IN '97, '99, & '07. OVTP: EGGS OBS IN '96-98 & '00-'02. LARVAE OBS IN '93, '95, '99, '03, & '05-'07. 1 ADULT OBS IN '98.				
Owner/Manager:	NPS-POINT REYES NS				
Occurrence No.	1137	Map Index: 75549	EO Index: 76555	Element Last Seen:	1995-05-24
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1995-05-24
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-06-18
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.97046 / -122.72788		Accuracy:	80 meters	
UTM:	Zone-10 N4202573 E523900		Elevation (ft):	445	
PLSS:	T02N, R08W, Sec. 34, NW (M)		Acres:	0.0	
Location:	EAST SIDE OF HWY 1, 2.30 AIR MI NNW OF WOODVILLE, GOLDEN GATE NATIONAL RECREATION AREA.				
Detailed Location:	CREEK NORTH OF MILL GULCH. FELLERS SITE ID IS P-248.				
Ecological:					
General:	1 ADULT OBSERVED ON 24 MAY 1995.				
Owner/Manager:	NPS-GGNRA				



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Occurrence No.	1138	Map Index: 75552	EO Index: 76557	Element Last Seen:	1997-02-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1997-02-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-06-18
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.96735 / -122.71807		Accuracy:	80 meters	
UTM:	Zone-10 N4202230 E524763		Elevation (ft):	700	
PLSS:	T02N, R08W, Sec. 34, SE (M)		Acres:	0.0	
Location:	POND ON THE EAST SIDE OF HWY 1, 1.66 MI NNW OF WOODVILLE, GOLDEN GATE NATIONAL RECREATION AREA.				
Detailed Location:	POND IS IN BETWEEN MILL GULCH AND COTTINHAM GULCH. FELLERS SITE ID IS P-144A.				
Ecological:					
General:	5 EGGS OBSERVED ON 14 FEB 1995. 7 EGGS OBSERVED ON 29 JAN 1996. 33,285 EGGS OBSERVED ON 12 FEB 1997.				
Owner/Manager:	NPS-GGNRA				

Occurrence No.	1139	Map Index: 75553	EO Index: 76558	Element Last Seen:	2000-02-01
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2000-02-01
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2009-06-18
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.97513 / -122.72838		Accuracy:	80 meters	
UTM:	Zone-10 N4203091 E523855		Elevation (ft):	425	
PLSS:	T02N, R08W, Sec. 34, NW (M)		Acres:	0.0	
Location:	POND ON THE EAST SIDE OF HWY 1, 2.42 AIR MI NNW OF WOODVILLE, GOLDEN GATE NATIONAL RECREATION AREA.				
Detailed Location:	POND IS LOCATED 3 CREEKS NORTH OF MILL GULCH. FELLERS SITE ID IS P-151.				
Ecological:					
General:	2 SUBADULTS & 2 LARVAE OBSERVED ON 12 AUG 1994. 1 LARVA OBSERVED ON 29 MAY 1996. 2,245 EGGS OBSERVED ON 12 FEB 1997. 1500 EGGS OBSERVED ON 1 FEB 2000.				
Owner/Manager:	NPS-GGNRA				

Rana boylei pop. 1		Element Code: AAABH01051	
foothill yellow-legged frog - north coast DPS			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3T4
	State: None		State: S4
Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive		
Habitat:	General:	NORTHERN COAST RANGES NORTH OF SAN FRANCISCO BAY ESTUARY, KLAMATH MOUNTAINS, AND CASCADE RANGE INCLUDING WATERSHED SUBBASINS (HU 8) LOWER PIT, BATTLE CREEK, THOMES CREEK, AND BIG CHICO CREEK IN LASSEN, SHASTA, TEHAMA, AND BUTTE COUNTIES.	
	Micro:	PARTLY SHADED SHALLOW STREAMS AND RIFFLES WITH A ROCKY SUBSTRATE IN A VARIETY OF HABITATS. NEEDS AT LEAST SOME COBBLE-SIZED SUBSTRATE FOR EGG-LAYING AND AT LEAST 15 WEEKS TO ATTAIN METAMORPHOSIS.	



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Occurrence No.	1582	Map Index:	32349	EO Index:	2620	Element Last Seen:	1956-04-XX
Occ. Rank:	None	Presence:	Possibly Extirpated	Site Last Seen:			1956-04-XX
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2018-08-07

Quad Summary: Bolinas (3712286), San Geronimo (3812216)

County Summary: Marin

Lat/Long:	38.00209 / -122.70855	Accuracy:	non-specific area
UTM:	Zone-10 N4206087 E525587	Elevation (ft):	171
PLSS:	T02N, R08W, Sec. 23, N (M)	Acres:	31.0

Location: LAGUNITAS CREEK, BETWEEN PETERS DAM AND SIR FRANCIS DRAKE BLVD, NEAR THE TOWN OF LAGUNITAS.

Detailed Location: OBSERVATION RECORD STATED AS "LAGUNITAS CREEK, BELOW PETERS DAM, MARIN CO" (ABUNDANCE MODERATELY ABUNDANT ON A SCALE OF NUMEROUS, MODERATELY ABUNDANT, AND SPARSE).

Ecological: PETERS DAM WAS CONSTRUCTED IN 1954 FORMING KENT LAKE; THE RESERVOIR CAPACITY WAS DOUBLED IN 1982.

General: MODERATELY ABUNDANT NUMBERS OBSERVED IN MARCH AND APRIL 1956. IT IS BELIEVED THAT THIS POPULATION IS NOW EXTIRPATED (GARCIA AND ASSOC 2010).

Owner/Manager: UNKNOWN

Occurrence No.	1590	Map Index:	74690	EO Index:	75691	Element Last Seen:	2022-02-21
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:			2022-02-21
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2022-03-11

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96763 / -122.65022	Accuracy:	non-specific area
UTM:	Zone-10 N4202281 E530723	Elevation (ft):	750
PLSS:	T02N, R07W, Sec. 32, E (M)	Acres:	62.0

Location: LITTLE CARSON CREEK AND TRIBUTARY, UPSTREAM OF KENT LAKE, ABOUT 3 MILES SOUTH OF THE TOWN OF WOODACRE.

Detailed Location: CREEK LOCALLY KNOWN AS LITTLE CARSON CREEK AND UPSTREAM FALLS KNOWN AS CARSON FALLS. INCLUDES FELLERS SITE #P-367. 1 OF 3 EXTANT POPULATIONS IN MMWD'S MOUNT TAMALPAIS WATERSHED.

Ecological: POPULATION AT FALLS REGULARLY MONITORED. THIS IS A POPULAR RECREATION AREA & MARIN MWD HAS VOLUNTEER DOCENTS HERE TO EDUCATE THE PUBLIC ABOUT R. BOYLII. TWO TESTED POSITIVE FOR CHYTRID IN 2009. ONE BULLFROG OBSERVED NEAR LAKE IN 1997.

General: MULTIPLE DETECTIONS OF VARIOUS LIFE STAGES WERE MADE ALONG THIS DRAINAGE IN 1997, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, AND 2019. INAT DOCUMENTATION IN 2020, 2021, & 2022.

Owner/Manager: MARIN MWD



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Occurrence No.	1591	Map Index: B0266	EO Index: 112124	Element Last Seen:	1916-07-30
Occ. Rank:	None		Presence: Extirpated	Site Last Seen:	1916-07-30
Occ. Type:	Natural/Native occurrence		Trend: Decreasing	Record Last Updated:	2018-08-07
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.96613 / -122.66959		Accuracy:	non-specific area	
UTM:	Zone-10 N4202108 E529023		Elevation (ft):	350	
PLSS:	T02N, R07W, Sec. 31 (M)		Acres:	147.0	
Location:	LAGUNITAS CREEK UNDER KENT LAKE, SW OF PINE MOUNTAIN RIDGE, NORTH OF MOUNT TAMALPAIS STATE PARK.				
Detailed Location:	FORMERLY ALONG LAGUNITAS CREEK. CAMP HIKE OVER BOLINAS RD FROM FAIRFAX TO LIBERTY (UNDER ALPINE LAKE), & THEN ALONG LAGUNITAS CREEK TO LAGUNITAS TRAIN STATION. MAPPED WITH RESPECT TO PRE 1920S TOPOS & ELEVATION OF 300-400 FT.				
Ecological:	ALPINE DAM WAS COMPLETED IN 1919 AND PETERS DAM (KENT LAKE) WAS COMPLETED IN 1954. AT THE TIME OF THE 1904 & 1916 COLLECTIONS, THE REACH NNW OF SHAFTER WAS KNOWN AS PAPER MILL CREEK, & SOUTH WAS LAGUNITAS CREEK.				
General:	HISTORIC LAGUNITAS CREEK COLLECTIONS FROM 1904 INCLUDED HERE (MAY HAVE BEEN COLLECTED FROM PORTION UNDER ALPINE LAKE). ON 30 JUL 1916, A FEW FROGS WERE SEEN, ONE SITTING ON A ROCK IN THE STREAM, AND ONE R. BOYLII WAS COLLECTED BY C. CAMP.				
Owner/Manager:	MARIN MWD				
Occurrence No.	1592	Map Index: 74687	EO Index: 75689	Element Last Seen:	2021-08-21
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2021-08-21
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2022-03-09
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.99158 / -122.66122		Accuracy:	non-specific area	
UTM:	Zone-10 N4204934 E529748		Elevation (ft):	704	
PLSS:	T02N, R07W, Sec. 20, SW (M)		Acres:	147.0	
Location:	BIG CARSON CREEK AND TRIBUTARIES, UPSTREAM OF KENT LAKE, ABOUT 2 MILES SW OF THE TOWN OF WOODACRE.				
Detailed Location:	FELLERS SITES P-334 & P-340. MAPPED TO REGULAR SURVEY AREAS BY GARCIA & ASSOCIATES. 1 OF 3 EXTANT POPULATIONS IN MARIN MWD'S MT TAMALPAIS WATERSHED.				
Ecological:	POPULATION HAS PERSISTED DESPITE THE CONSTRUCTION OF PETERS DAM AND INUNDATION OF KENT LAKE IN 1954, AND THE DOUBLING OF THE RESERVOIR'S SIZE IN 1982. RECREATION IMPACT TO THIS AREA IS UNKNOWN. TARICHA, THAMNOPHIS, & DICAMPTODON ALSO FOUND.				
General:	COLLECTED NEAR HERE, 1952. COLLECTED FROM BIG CARSON CREEK, 1967. ALL LIFE STAGES DETECTED IN 1996, 1997, 1999, 2000, AND 2002-2008 (FELLERS); AND FROM 2009-2019 (GARCIA & ASSOC); AND 2020 (INAT). 1 OBSERVED ON 21 AUG 2021.				
Owner/Manager:	MARIN MWD				



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Occurrence No.	1593	Map Index: B0189	EO Index: 112048	Element Last Seen: 1922-10-19
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1922-10-19
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2018-07-30

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.92311 / -122.70324	Accuracy:	non-specific area
UTM:	Zone-10 N4197326 E526082	Elevation (ft):	37
PLSS:	T01N, R08W, Sec. 14, E (M)	Acres:	125.0

Location: LOWER PORTION OF PINE GULCH CREEK IN PARADISE VALLEY, JUST NORTH OF THE TOWN OF BOLINAS.

Detailed Location: COLLECTION LOCALITY ONLY DESCRIBED AS PINE GULCH CREEK. EXACT LOCATION OF COLLECTION UNKNOWN. MAPPED TO THE LOWER PORTION OF PINE GULCH CREEK WHICH APPEARS ACCESSIBLE ON 1920'S ERA TOPO MAPS.

Ecological: MANY HISTORIC POPULATIONS OF R. BOYLII IN MARIN COUNTY ARE THOUGHT TO BE EXTIRPATED. UNKNOWN IF THIS AREA HAS BEEN RESURVEYED. NEEDS FIELD RESEARCH.

General: TWO WERE COLLECTED IN OCT 1922.

Owner/Manager: UNKNOWN

Occurrence No.	1594	Map Index: B0190	EO Index: 112049	Element Last Seen: 1963-03-02
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1963-03-02
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2018-08-08

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.93729 / -122.68495	Accuracy:	non-specific area
UTM:	Zone-10 N4198904 E527684	Elevation (ft):	176
PLSS:	T01N, R08W, Sec. 12, E (M)	Acres:	77.0

Location: PIKE COUNTY GULCH, UPSTREAM FROM BOLINAS LAGOON, W SLOPE BOLINAS RIDGE, ABOUT 3 MILES NW OF THE TOWN OF STINSON BEACH.

Detailed Location: FOUND IN THE STREAM WITHIN THE GULCH ON GALLOWAY ESTATE. MAPPED TO THE GENERAL AREA OF THE GULCH UPSTREAM TO BOLINAS ROAD.

Ecological: OTHER SPECIES FOUND HERE INCLUDED DICAMPTODON, BATRACHOSEPS, AND ENSATINA.

General: 20 COLLECTED FROM THE STREAM IN 1963. UNKNOWN IF SITE HAS BEEN RESURVEYED OR WHAT THE CURRENT STATUS IS OF WHAT APPEARS TO HAVE BEEN AN ABUNDANT POPULATION. NEEDS FIELD RESEARCH.

Owner/Manager: AUDUBON CANYON RANCH, GGNRA



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Occurrence No.	1595	Map Index:	32350	EO Index:	2646	Element Last Seen:	1956-04-XX
Occ. Rank:	None	Presence:	Extirpated	Site Last Seen:			2010-06-XX
Occ. Type:	Natural/Native occurrence	Trend:	Decreasing	Record Last Updated:			2018-07-27

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.92333 / -122.62744	Accuracy:	non-specific area
UTM:	Zone-10 N4197374 E532744	Elevation (ft):	1681
PLSS:	T01N, R07W, Sec. 16, E (M)	Acres:	89.0

Location: CATARACT CREEK AT LAUREL DELL, E OF BOLINAS RIDGE & RIDGECREST BLVD 1 AIR MILE NW OF ROCK SPRINGS, W SLOPE MT TAMALPAIS.

Detailed Location: 1956 RECORD STATED AS "CATARACT GULCH, TRIB TO LAKE ALPINE AT LAUREL DELL, MARIN CO" (ABUNDANCE MODERATELY ABUNDANT ON A SCALE OF NUMEROUS, MODERATELY ABUNDANT, OR SPARSE). EASILY ACCESSIBLE BY CATARACT TRAIL & LAUREL DELL ACCESS ROAD.

Ecological: CREEK. HABITAT ASSESSMENT IN 2010 CONCLUDED THAT SUITABLE HABITAT WAS PRESENT, ESPECIALLY THE LOWER-GRADIENT PORTIONS AT LAUREL DELL & UPSTREAM OF BARTHS CREEK. WAS RANKED THE BEST OF 3 CREEKS IN THE WATERSHED FOR POSSIBLE REINTRODUCTION.

General: COLLECTED IN 1917 & 1951. MODERATE ABUNDANCE OF R. BOYLII OBSERVED IN MAR-APR 1956. NOT DETECTED DURING SURVEYS IN MAY 1997, APR 2003, SEP 2009, AND MAY-JUN 2010. SITE CONSIDERED EXTIRPATED BY LIND (2005) AND GARCIA & ASSOC (2003, 2010).

Owner/Manager: MARIN MWD

Occurrence No.	1596	Map Index:	B0183	EO Index:	112039	Element Last Seen:	1955-12-02
Occ. Rank:	None	Presence:	Possibly Extirpated	Site Last Seen:			1996-08-08
Occ. Type:	Natural/Native occurrence	Trend:	Decreasing	Record Last Updated:			2018-10-09

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.9542 / -122.63534	Accuracy:	non-specific area
UTM:	Zone-10 N4200796 E532036	Elevation (ft):	713
PLSS:	T01N, R07W, Sec. 4, N (M)	Acres:	19.0

Location: VICINITY OF LILY LAKE AND LILY GULCH, WEST SIDE OF ALPINE LAKE, 4 MILES NE OF TOWN OF BOLINAS.

Detailed Location: IT APPEARS THAT LILY LAKE MAY BE RELATIVELY EASY TO ACCESS FROM BOLINAS ROAD WHERE IT CROSSES LILY GULCH. 1928 SPECIMEN COLLECTED FROM "ALPINE LAKE," BUR29A0001 SAYS THEY COLLECTED ON ROAD FROM SAN RAFAEL TO BOLINAS 6 MI W OF SAN RAFAEL.

Ecological: ALPINE DAM WAS COMPLETED IN 1919 AND ENLARGED IN 1924 AND 1941. DAMS ARE KNOWN TO HAVE A NEGATIVE AFFECT ON R. BOYLII POPULATIONS. R. BOYLII APPEARS TO BE EXTIRPATED FROM THE LAGUNITAS CREEK WATERSHED ABOVE KENT LAKE.

General: COLLECTED IN 1928 AND 1955. NOT DETECTED IN 1996 SURVEYS AT LILY LAKE. R. BOYLII SURVEYS WERE NEGATIVE IN THE LAGUNITAS WATERSHED DOWNSTREAM OF ALPINE DAM (2010), AT CATARACT (2010), VAN WYCK (2003), & SWEDE GEORGE CRKS (2003).

Owner/Manager: MARIN MWD



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Ardea herodias		Element Code: ABNGA04010	
great blue heron			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S4
	Other: CDF_S-Sensitive, IUCN_LC-Least Concern		
Habitat:	General: COLONIAL NESTER IN TALL TREES, CLIFFSIDES, AND SEQUESTERED SPOTS ON MARSHES.		
	Micro: ROOKERY SITES IN CLOSE PROXIMITY TO FORAGING AREAS: MARSHES, LAKE MARGINS, TIDE-FLATS, RIVERS AND STREAMS, WET MEADOWS.		

Occurrence No.	25	Map Index:	08266	EO Index:	25952	Element Last Seen:	1982-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	1995-11-21
Occ. Type:	Natural/Native occurrence	Trend:	Increasing				

Quad Summary:	Bolinas (3712286)
County Summary:	Marin

Lat/Long:	37.93103 / -122.68082	Accuracy:	1/5 mile
UTM:	Zone-10 N4198211 E528049	Elevation (ft):	100
PLSS:	T01N, R08W, Sec. 12 (M)	Acres:	0.0

Location:	AUDUBON CANYON RANCH, ON E SIDE OF HWY 1, APPROX 3 MI NW OF STINSON BEACH.
Detailed Location:	ROOKERY SITE IS LOCATED IN COAST REDWOODS.
Ecological:	
General:	BOTH GREAT BLUE HERONS AND GREAT HERONS NEST HERE. ROOKERY WAS WELL-ESTABLISHED AND ACTIVE IN 1941; POPULATION HAS BEEN MONITORED SINCE 1967. NUMBERS REMAINED STABLE BETWEEN 1967 AND 1973; DECLINED FROM 58 PAIRS IN 1973 TO 27 PAIRS IN 1981.
Owner/Manager:	AUDUBON CANYON RANCH



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Ardea alba		Element Code: ABNGA04040	
great egret			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S4
	Other: CDF_S-Sensitive, IUCN_LC-Least Concern		
Habitat:	General: COLONIAL NESTER IN LARGE TREES.		
	Micro: ROOKERY SITES LOCATED NEAR MARSHES, TIDE-FLATS, IRRIGATED PASTURES, AND MARGINS OF RIVERS AND LAKES.		

Occurrence No.	14	Map Index:	08266	EO Index:	25935	Element Last Seen:	1982-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	1995-11-21
Occ. Type:	Natural/Native occurrence	Trend:	Increasing				

Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						

Lat/Long:	37.93103 / -122.68082	Accuracy:	1/5 mile
UTM:	Zone-10 N4198211 E528049	Elevation (ft):	100
PLSS:	T01N, R08W, Sec. 12 (M)	Acres:	0.0

Location: AUDUBON CANYON RANCH, ON EAST SIDE OF HWY 1, APPROX 3 MILES NW OF STINSON BEACH.

Detailed Location: COLONY IS LOCATED IN COAST REDWOODS.

Ecological:

General: COLONY WAS WELL-ESTABLISHED AND ACTIVE IN 1941. BOTH GREAT EGRETS AND GREAT BLUE HERONS NEST AT THIS LOCATION; THE POPULATION HAS BEEN MONITORED SINCE 1967. THE NESTING POPULATION INCREASED FROM 70 TO 148 PAIRS BETWEEN 1967 AND 1981.

Owner/Manager: AUDUBON CANYON RANCH

Laterallus jamaicensis coturniculus		Element Code: ABNME03041	
California black rail			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3T1
	State: Threatened		State: S2
	Other: BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered		
Habitat:	General: INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS.		
	Micro: NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.		



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Occurrence No.	80	Map Index: 08263	EO Index: 25788	Element Last Seen:	1986-06-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1986-06-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1996-01-02
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.92908 / -122.68360		Accuracy:	1/5 mile	
UTM:	Zone-10 N4197993 E527805		Elevation (ft):		
PLSS:	T01N, R08W, Sec. 12 (M)		Acres:	0.0	
Location:	COVE IN BOLINAS LAGOON AT MOUTH OF AUDUBON CANYON.				
Detailed Location:					
Ecological:					
General:	ONE RAIL RESPONDED TO A TAPED CALL DURING 1986 STUDY.				
Owner/Manager:	UNKNOWN				
Occurrence No.	81	Map Index: 08254	EO Index: 25790	Element Last Seen:	1986-06-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1986-06-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1996-01-02
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.93186 / -122.69026		Accuracy:	1/5 mile	
UTM:	Zone-10 N4198300 E527219		Elevation (ft):		
PLSS:	T01N, R08W, Sec. 12 (M)		Acres:	0.0	
Location:	COVE IN BOLINAS LAGOON AT MOUTH OF PIKE COUNTY GULCH.				
Detailed Location:					
Ecological:					
General:	ONE RAIL RESPONDED TO A TAPED CALL DURING 1986 SURVEY.				
Owner/Manager:	UNKNOWN				
Occurrence No.	272	Map Index: 76718	EO Index: 77667	Element Last Seen:	2001-05-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2001-05-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2017-03-27
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.91640 / -122.68507		Accuracy:	non-specific area	
UTM:	Zone-10 N4196587 E527680		Elevation (ft):	0	
PLSS:	T01N, R08W, Sec. 13, SE (M)		Acres:	251.0	
Location:	MARSH IN SW BOLINAS LAGOON, IN VICINITIY OF BOLINAS COUNTY PARK & KENT ISLAND.				
Detailed Location:	LOCATION DESCRIBED ONLY AS "BOLINAS LAGOON," A GENERAL MAP INDICATING A MARSH IN SW OF LAGOON. MAPPED TO MARSH BASED ON AERIAL & CIR IMAGES. EXACT LOCATION OF RAILS WITHIN THE LAGOON UNKNOWN.				
Ecological:	TIDAL MARSH.				
General:	1 HEARD CALLING ON 11 MAR 1979. 2 DETECTIONS DURING THE 2-16 MAY 1986 AND 23-24 APR 1987 SURVEYS. DETECTIONS IN 1988, 1996, 2000 & 2001. LOW ABUNDANCE (<0.6 RAILS/HA) IN 2001.				
Owner/Manager:	MRN COUNTY OPEN SPACE				



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<i>Rallus obsoletus obsoletus</i>		Element Code: ABNME05011	
California Ridgway's rail			
Listing Status:	Federal: Endangered	CNDDDB Element Ranks:	Global: G3T1
	State: Endangered		State: S2
	Other: CDFW_FP-Fully Protected		
Habitat:	General: SALT WATER AND BRACKISH MARSHES TRAVERSED BY TIDAL SLOUGHS IN THE VICINITY OF SAN FRANCISCO BAY.		
	Micro: ASSOCIATED WITH ABUNDANT GROWTHS OF PICKLEWEED, BUT FEEDS AWAY FROM COVER ON INVERTEBRATES FROM MUD-BOTTOMED SLOUGHS.		

Occurrence No.	2	Map Index: 08274	EO Index: 25870	Element Last Seen:	1975-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1975-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.92075 / -122.67665		Accuracy:	1 mile	
UTM:	Zone-10 N4197071 E528419		Elevation (ft):		
PLSS:	T01N, R07W, Sec. 18 (M)		Acres:	0.0	
Location:	BOLINAS LAGOON.				
Detailed Location:					
Ecological:					
General:	ONE RAIL OBSERVED IN 1970; ONE RAIL OBSERVED IN 1973.				
Owner/Manager:	UNKNOWN				

<i>Anarhynchus nivosus nivosus</i>		Element Code: ABNNB03031	
western snowy plover			
Listing Status:	Federal: Threatened	CNDDDB Element Ranks:	Global: G3T3
	State: None		State: S3
	Other: CDFW_SSC-Species of Special Concern		
Habitat:	General: SANDY BEACHES, SALT POND LEVEES AND SHORES OF LARGE ALKALI LAKES.		
	Micro: NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.		

Occurrence No.	70	Map Index: 08288	EO Index: 25745	Element Last Seen:	1978-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1978-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1999-05-14
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.90750 / -122.66625		Accuracy:	non-specific area	
UTM:	Zone-10 N4195604 E529339		Elevation (ft):	10	
PLSS:	T01N, R07W, Sec. 19 (M)		Acres:	220.7	
Location:	BOLINAS LAGOON SPIT, WEST OF STINSON BEACH.				
Detailed Location:					
Ecological:					
General:	1-2 NESTS OBSERVED DURING THE 1970'S; ONE PAIR OBSERVED DURING THE 1978 STUDY.				
Owner/Manager:	MRN COUNTY, PVT				



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<i>Athene cunicularia</i>		Element Code: ABNSB10010	
burrowing owl			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G4
	State: Candidate Endangered		State: S2
Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern		
Habitat:	General: OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.		
	Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.		

Occurrence No.	1880	Map Index:	88262	EO Index:	89280	Element Last Seen:	2021-11-18
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		2021-11-18	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2025-02-03	
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.924 / -122.64009			Accuracy:	specific area		
UTM:	Zone-10 N4197444 E531632			Elevation (ft):	1731		
PLSS:	T01N, R07W, Sec. 16, NW (M)			Acres:	10.0		
Location:	60 M ESE & 100 M SSW OF MCKENNAN GULCH TRAIL PARKING LOT ON RIDGECREST BLVD, 1.5 MI N OF STINSON BEACH, MT TAMALPAIS SP.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. WINTER BURROW SITES ARE JUST S OF MCKENNAN GULCH TRAIL & RIDGECREST BLVD, AND ABOUT 0.5 MI SSE OF MCKINNAN GULCH MINE (TRAIL, MINE, AND MCKINNAN GULCH SPELLED DIFF).						
Ecological:	WINTERING. OPEN GRASSLAND. OWLS WERE SEEN IN BURROWS, LIKELY COYOTE, FOX, OR BADGER BURROWS. IN 2013, THERE WERE SEVERAL BURROWS IN THE AREA AND THEY WERE MUCH LARGER THAN SQUIRREL OR EVEN SMALL FOX (LIKE KIT FOX) BURROWS.						
General:	1 ADULT FOUND & PHOTOGRAPHED ROOSTING IN BURROW ON 17 FEB 2013. 1 INDIVIDUAL FOUND & PHOTOGRAPHED ROOSTING IN BURROW ON 18 NOV 2021. UNKNOWN IF BURROWING OWLS NEST IN THIS AREA, BUT TOWNSEND 2007 SAYS BREEDING PAIRS EXTIRPATED IN MARIN CO.						
Owner/Manager:	DPR-MOUNT TAMALPAIS SP						

Occurrence No.	2138	Map Index:	C1543	EO Index:	133801	Element Last Seen:	2022-12-27
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2022-12-27	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2025-01-13	
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.90861 / -122.72442			Accuracy:	1/10 mile		
UTM:	Zone-10 N4195711 E524225			Elevation (ft):	142		
PLSS:	T01N, R08W, Sec. 22, W (M)			Acres:	18.0		
Location:	0.4 MI NNE OF BOLINAS POINT, 1.5 MI W OF MESA PARK, POINT REYES NATIONAL SEASHORE, BOLINAS.						
Detailed Location:	MAPPED TO THE PROVIDED COORDINATES.						
Ecological:	WINTERING. AREA APPEARS TO BE PRIMARILY OPEN GRASSLAND.						
General:	1 ADULT FOUND & PHOTOGRAPHED AT BURROW SITE ON 27 DEC 2022.						
Owner/Manager:	NPS-POINT REYES NS						



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Occurrence No.	2139	Map Index: C1546	EO Index: 133802	Element Last Seen: 2024-02-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 2024-02-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2025-01-14

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.91529 / -122.72725	Accuracy:	1/5 mile
UTM:	Zone-10 N4196451 E523974	Elevation (ft):	180
PLSS:	T01N, R08W, Sec. 15, SW (M)	Acres:	70.0

Location: COMMONWEAL, 0.8 MI N OF BOLINAS POINT, 1.4 MI SW OF PARADISE VALLEY RANCH, BOLINAS.
Detailed Location: EXACT LOCATION UNKNOWN. MAPPED NON-SPECIFICALLY TO "COMMONWEAL" ON POINT REYES NATIONAL SEASHORE LAND. INDIVIDUALS WERE ALL FOUND AT LOG PILES ON THE PROPERTY.
Ecological: WINTERING. INDIVIDUALS WERE ALL PHOTOGRAPHED WHILE ROOSTING WITHIN LOGS/LOG PILES. AREA APPEARS TO BE PRIMARILY OPEN GRASSLAND.
General: 1 ADULT FOUND ON 21 JAN & 11 NOV 2017. 1 ADULT ON 19 & 21 FEB, 17 & 18 MAR 2018. 1 ADULT ON 29 MAR 2020. 2 ADULTS ON 16 MAR 2021. 1 ADULT ON 12 FEB 2024.
Owner/Manager: NPS-POINT REYES NS

<i>Cypseloides niger</i>		Element Code: ABNUA01010
black swift		
Listing Status:	Federal: None	CNDDDB Element Ranks: Global: G4
	State: None	State: S3
Other:	CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFWS_BCC-Birds of Conservation Concern	
Habitat:	General: COASTAL BELT OF SANTA CRUZ AND MONTEREY COUNTIES; CENTRAL AND SOUTHERN SIERRA NEVADA; SAN BERNARDINO AND SAN JACINTO MOUNTAINS.	
	Micro: BREEDS IN SMALL COLONIES ON CLIFFS BEHIND OR ADJACENT TO WATERFALLS IN DEEP CANYONS AND SEA-BLUFFS ABOVE THE SURF; FORAGES WIDELY.	

Occurrence No.	15	Map Index: 08217	EO Index: 25426	Element Last Seen: 1983-06-02
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1983-06-02
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 1989-08-10

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.92603 / -122.71833	Accuracy:	1 mile
UTM:	Zone-10 N4197645 E524754	Elevation (ft):	600
PLSS:	T01N, R08W, Sec. 15 (M)	Acres:	0.0

Location: PALOMARIN, N OF BOLINAS.
Detailed Location:
Ecological: RARE, LOCAL SUMMER RESIDENT WHICH ARRIVES IN MID-MAY FOR NESTING. NESTS ONLY ON CLIFFS BEHIND OR ADJACENT TO WATERFALLS. LAYS A SINGLE EGG PER SEASON.
General: TWO OBSERVED DURING NESTING SEASON; TAKEN FROM AMERICAN BIRDS 37(6):1024.
Owner/Manager: UNKNOWN



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Geothlypis trichas sinuosa

Element Code: ABPBX1201A

saltmarsh common yellowthroat

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5T3
	State: None		State: S3
	Other: CDFW_SSC-Species of Special Concern, USFWS_BCC-Birds of Conservation Concern		
Habitat:	General: RESIDENT OF THE SAN FRANCISCO BAY REGION, IN FRESH AND SALT WATER MARSHES.		
	Micro: REQUIRES THICK, CONTINUOUS COVER DOWN TO WATER SURFACE FOR FORAGING; TALL GRASSES, TULE PATCHES, WILLOWS FOR NESTING.		

Occurrence No.	50	Map Index: 08247	EO Index: 24815	Element Last Seen: 1985-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1985-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 1995-12-11

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.93408 / -122.69776	Accuracy:	1/5 mile
UTM:	Zone-10 N4198544 E526559	Elevation (ft):	
PLSS:	T01N, R08W, Sec. 11 (M)	Acres:	0.0

Location: TIP OF BOLINAS LAGOON, 0.9 MILE SE OF WOODVILLE, GOLDEN GATE NATIONAL RECREATION AREA.

Detailed Location:

Ecological:

General: 2 BREEDING PAIRS OBSERVED IN 1985 IN AN AREA OF UPLAND VEGETATION INTERSPERSED WITH RUSHES.

Owner/Manager: NPS-GGNRA

Occurrence No.	51	Map Index: 08221	EO Index: 24813	Element Last Seen: 1985-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1985-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2005-02-11

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.95353 / -122.71735	Accuracy:	non-specific area
UTM:	Zone-10 N4200696 E524831	Elevation (ft):	170
PLSS:	T01N, R08W, Sec. 03, NE (M)	Acres:	29.0

Location: DOGTOWN MARSH, SAN ANDREAS RIFT ZONE, 0.8 MILE NW OF WOODVILLE, GOLDEN GATE NATIONAL RECREATION AREA.

Detailed Location:

Ecological:

General: 3 BREEDING PAIRS OBSERVED IN A 1985 SURVEY IN CATTAILS AND WILLOWS, NEAR THE EDGE OF THE MARSH.

Owner/Manager: NPS-POINT REYES NS



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Oncorhynchus kisutch pop. 4

Element Code: AFCHA02034

coho salmon - central California coast ESU

Listing Status: Federal: Endangered

CNDDDB Element Ranks: Global: G5T2Q

State: Endangered

State: S2

Other: AFS_EN-Endangered

Habitat: General: FEDERAL LISTING = POPS BETWEEN PUNTA GORDA AND SAN LORENZO RIVER. STATE LISTING = POPS SOUTH OF PUNTA GORDA.

Micro: REQUIRE BEDS OF LOOSE, SILT-FREE, COARSE GRAVEL FOR SPAWNING. ALSO NEED COVER, COOL WATER AND SUFFICIENT DISSOLVED OXYGEN.

Occurrence No.	9	Map Index:	40996	EO Index:	40996	Element Last Seen:	2003-10-22
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2003-10-22	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2004-08-17	

Quad Summary: Bolinas (3712286), Double Point (3712287), San Geronimo (3812216), Inverness (3812217)

County Summary: Marin

Lat/Long:	38.04890 / -122.75770	Accuracy:	non-specific area
UTM:	Zone-10 N4211268 E521259	Elevation (ft):	180
PLSS:	T02N, R08W, Sec. 05 (M)	Acres:	1870.4

Location: LAGUNITAS CREEK DRAINAGE, POINT REYES STATION, POINT REYES NATIONAL SEASHORE, SAMUEL P. TAYLOR STATE PARK.

Detailed Location: OLEMA CR: 15 SURVEYS (13.4-15.6 KM SECTIONS) 1994-98; LAGUNITAS CR: 41 SURVEYS (13.3 KM SEC) 1982-98; DEVIL'S GULCH: 38 SURVEYS (1.6-3.2 KM SEC) 1948-98; SAN GERONIMO CR: 32 SURVEYS (6.7 KM SEC) 1982-98. TOTAL 36KM. OBS 2001. 2003:10 SITES.

Ecological: THESE STREAMS ARE THOUGHT TO BE WHERE UP TO 10 % OF CALIFORNIA'S COHO SPAWN. REPORT HAS INFORMATION ON EACH STREAM BY: YEAR; NUMBER & AREA OF SURVEYS; TOTAL FISH (LIVE & DEAD) COUNT; TOTAL CARCASSES; TOTAL NEW REDDS; & SOURCES OF DATA.

General: FISH TOTALS (LIVE & DEAD) FOR LAGUNITAS CR WATERSHED: 1995-6, 290; 1996-7, 525; 1997-8, 241. MARIN MWD SURVEYS, FISH/ YEAR: 216/1993; 578/1994; 210/1995; 246/1996; 541/1997; 124/1998; 168/1999. 2000; 2084/2000-01 OBS ALL 4 CRKS. 608/2003.

Owner/Manager: NPS, DPR, MRN COUNTY, PVT



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<i>Lasiurus cinereus</i>		Element Code: AMACC05032	
hoary bat			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3G4
	State: None		State: S4
	Other: IUCN_LC-Least Concern		
Habitat:	General: PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING.		
	Micro: ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.		

Occurrence No.	220	Map Index:	71701	EO Index:	72599	Element Last Seen:	1954-09-01
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:			1954-09-01
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2008-07-15

Quad Summary: Bolinas (3712286), Double Point (3712287)
County Summary: Marin

Lat/Long:	37.95906 / -122.75563	Accuracy:	1 mile
UTM:	Zone-10 N4201301 E521466	Elevation (ft):	1215
PLSS:	T02N, R08W, Sec. 32 (M)	Acres:	0.0

Location: PUNTA DE LOS REYES (POINT REYES NS), 1.6 MILES NE OF DOUBLE POINT, 5.1 MILES NW OF BOLINAS POST OFFICE.
Detailed Location: MAPPED TO DESCRIBED LOCATION OF "THE KETTENHOFEN RANCH, ABOUT 6 MILES SOUTH OF OLEMA, MARIN COUNTY."
Ecological:
General: AN ADULT FEMALE HOARY BAT WAS SHOT FROM A GROUP OF FLYING BATS AT THE LEADING EDGE OF A FOG BANK AT DUSK.
Owner/Manager: NPS-POINT REYES NS

Occurrence No.	221	Map Index:	71702	EO Index:	72600	Element Last Seen:	1954-09-02
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:			1954-09-02
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2008-07-15

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.93331 / -122.72243	Accuracy:	non-specific area
UTM:	Zone-10 N4198452 E524391	Elevation (ft):	430
PLSS:	T01N, R08W, Sec. 10 (M)	Acres:	3248.0

Location: PUNTA DE LOS REYES (POINT REYES NS), PABLO POINT AND STEWART POINT, 2.5 MILES NW OF BOLINAS POST OFFICE.
Detailed Location: MAPPED TO DESCRIBED LOCATIONS OF "BRIONE ORCHARD, 3 MILES NW OF BOLINAS" AND "MARTINELLI RANCH, ABOUT 2 MILES NW OF BOLINAS."
Ecological: HABITAT CONSISTED OF CHERRY TREE ORCHARDS. EACH LOCATION HAD ADEQUATE FLIGHT SPACE, & AIR TEMPERATURES WERE ABOVE 75 F; THE BATS WERE QUITE ACTIVE.
General: ON 1 SEP A FEMALE ADULT WAS FOUND ON A SMALL BRANCH 20' FROM THE GROUND IN A LEAFY OVERHANG PRODUCED BY THE OVERLAPPING CANOPIES OF TWO CHERRY TREES. ON 2 SEP A MALE ADULT WAS FOUND HANGING 15' ABOVE PLOWED EARTH ON NORTH SIDE OF TREE.
Owner/Manager: NPS-POINT REYES NS, PVT



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Corynorhinus townsendii

Element Code: AMACC08010

Townsend's big-eared bat

Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G4
	State: None		State: S2
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive		
Habitat:	General: THROUGHOUT CALIFORNIA IN A WIDE VARIETY OF HABITATS. MOST COMMON IN MESIC SITES.		
	Micro: ROOSTS IN THE OPEN, HANGING FROM WALLS AND CEILINGS. ROOSTING SITES LIMITING. EXTREMELY SENSITIVE TO HUMAN DISTURBANCE.		

Occurrence No.	122	Map Index:	36741	EO Index:	31738	Element Last Seen:	2013-XX-XX
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:			2013-XX-XX
Occ. Type:	Natural/Native occurrence	Trend:	Increasing	Record Last Updated:			2014-12-11

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.97920 / -122.73529	Accuracy:	80 meters
UTM:	Zone-10 N4203540 E523247	Elevation (ft):	400
PLSS:	T02N, R08W, Sec. 28, SE (M)	Acres:	0.0

Location: RANDALL HOUSE, 5 MILES SOUTH OF OLEMA ON HIGHWAY 1, POINT REYES NATIONAL SEASHORE.

Detailed Location: MAPPED TO PROVIDED COORDINATES. LOCALITY OF RANDALL HOUSE IN THE CENTER OF OLEMA VALLEY; 100 M W OF OLEMA CREEK AND 1.1 KM N OF A SMALL RANCH.

Ecological: 2-STORY RANCH HOUSE ON POINT REYES NS. SURROUNDED BY GRAZED GRASSLAND. ORIGINAL SIZE OF COLONY WAS 65 FEMALES, 1987 WAS 120, 1987-1991 WAS 160. LIKELY AN ALTERNATE ROOST TO COPPER MINE GULCH.

General: 9 SEEN IN 1988. 21 TAGGED IN NOV 1989. 183 IN APR & 268 IN JUL 1992. 3 (PREVIOUSLY BANDED) SEEN IN FEB, 206 IN APR, 244 IN MAY, 17 FIT W/TRANSMITTERS IN NOV, 19 (2 BANDED) IN NOV OF 1997. SITE SURVEYS SPANNING 25 YEARS & INCREASING IN 2013.

Owner/Manager: NPS-POINT REYES NS

Occurrence No.	435	Map Index:	92461	EO Index:	93600	Element Last Seen:	2006-05-23
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:			2006-05-23
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2014-11-20

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94540 / -122.69509	Accuracy:	1 mile
UTM:	Zone-10 N4199801 E526789	Elevation (ft):	470
PLSS:	T01N, R08W, Sec. 01 (M)	Acres:	0.0

Location: ABOUT 2.5 MI N OF BOLINAS (TOWN) AND ABOUT 4 MI S OF SHAFTER.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED GENERALLY TO ENCOMPASS LOCALITIES OF "2 MI N OF BOLINAS," "3 MI NNW OF BOLINAS IN COPPER MINE GULCH," "RON COMACHO RESIDENCE (NPS HOUSING)" AND "6 KM SW OF RANDALL HOUSE NEAR BOLINAS."

Ecological: COPPER MINE GULCH WAS KNOWN AS THE POINT REYES COLONY. NOW IT IS ASSUMED THE COLONY MOVED TO AN ALTERNATE ROOST AT THE RANDALL HOUSE (EO#122, EONDX 31738). MANAGED BY POINT REYES NATIONAL SEASHORE.

General: 2 FEMALES COLLECTED ON 2 JUL 1957. 1 OBSERVED ON 10 JUL 1987. 0 FOUND ON 5 FEB 1988. 2 COLLECTED ON 10 OCT 1992. 6 FOUND IN SHED ON 2 DEC 1997. 244 FEMALES EXITED FROM HOUSE ON 23 MAY 2006.

Owner/Manager: NPS



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<i>Antrozous pallidus</i>		Element Code: AMACC10010	
pallid bat			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G4
	State: None		State: S3
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive		
Habitat:	General: DESERTS, GRASSLANDS, SHRUBLANDS, WOODLANDS AND FORESTS. MOST COMMON IN OPEN, DRY HABITATS WITH ROCKY AREAS FOR ROOSTING.		
	Micro: ROOSTS MUST PROTECT BATS FROM HIGH TEMPERATURES. VERY SENSITIVE TO DISTURBANCE OF ROOSTING SITES.		

Occurrence No.	206	Map Index: 66541	EO Index: 66669	Element Last Seen:	1987-12-01
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1987-12-01
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2006-10-03
Quad Summary:	Bolinás (3712286), Double Point (3712287), San Geronimo (3812216), Inverness (3812217)				
County Summary:	Marin				
Lat/Long:	37.99751 / -122.75559		Accuracy:	2/5 mile	
UTM:	Zone-10 N4205567 E521459		Elevation (ft):	200	
PLSS:	T02N, R08W, Sec. 21 (M)		Acres:	0.0	
Location:	STAR HIGHWAY, S FIVE BROOKS TRAIL HEAD, RANDALL HOUSE.				
Detailed Location:	MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN IN MANIS, WITH UNCERTAINTY OF 476.36582 M.				
Ecological:					
General:	1 UNKNOWN SPECIMEN COLLECTED 1 DEC 1987, MVZ #182547.				
Owner/Manager:	UNKNOWN				

<i>Aplodontia rufa phaea</i>		Element Code: AMAFA01012	
Point Reyes mountain beaver			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5T2
	State: None		State: S2
	Other: CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern		
Habitat:	General: COASTAL AREA OF POINT REYES IN AREAS OF SPRINGS OR SEEPAGES.		
	Micro: NORTH-FACING SLOPES OF HILLS AND GULLIES IN AREAS OVERGROWN WITH SWORD FERNS AND THIMBLEBERRIES.		

Occurrence No.	3	Map Index: 08246	EO Index: 30013	Element Last Seen:	1909-12-31
Occ. Rank:	None		Presence: Possibly Extirpated	Site Last Seen:	1981-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1995-08-21
Quad Summary:	Bolinás (3712286), San Geronimo (3812216)				
County Summary:	Marin				
Lat/Long:	38.01047 / -122.70166		Accuracy:	1 mile	
UTM:	Zone-10 N4207019 E526189		Elevation (ft):	240	
PLSS:	T02N, R08W, Sec. 14 (M)		Acres:	0.0	
Location:	LAGUNITAS.				
Detailed Location:					
Ecological:					
General:	1 CAS & 2 MVZ SPECIMENS. 1981 SURVEY DID NOT LOCATE AN EXTANT POPULATION IN THE AREA.				
Owner/Manager:	DPR, MRN COUNTY OSD, MMWD, PVT				



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<i>Taxidea taxus</i>		Element Code: AMAJF04010	
American badger			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S3
	Other: CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern		
Habitat:	General: MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.		
	Micro: NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.		

Occurrence No.	154	Map Index:	56865	EO Index:	56881	Element Last Seen:	1930-11-20
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1930-11-20	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2004-09-20	

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.92123 / -122.70284	Accuracy:	4/5 mile
UTM:	Zone-10 N4197117 E526116	Elevation (ft):	200
PLSS:	T01N, R08W, Sec. 14 (M)	Acres:	0.0

Location: 0.75 MI FROM BEACH, 1.25 MI NW BOLINAS.
Detailed Location: LOCATION MAPPED ACCORDING TO LAT/LONG GIVEN BY MVZ; MAX ERROR DISTANCE: 1.98 MI.
Ecological:
General: COLLECTED (MVZ #46656) BY C. E. DEMOREST ON 20 NOV 1930.
Owner/Manager: UNKNOWN



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Actinemys marmorata		Element Code: ARAAD02031	
northwestern pond turtle			
Listing Status:	Federal: Proposed Threatened	CNDDB Element Ranks:	Global: G2
	State: None		State: SNR
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive		
Habitat:	General: <input type="checkbox"/>		
	Micro: <input type="checkbox"/>		

Occurrence No.	1266	Map Index:	99315	EO Index:	100869	Element Last Seen:	2015-06-17
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2015-06-17	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2016-02-29	

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.93303 / -122.70692	Accuracy:	specific area
UTM:	Zone-10 N4198425 E525754	Elevation (ft):	250
PLSS:	T01N, R08W, Sec. 11, SW (M)	Acres:	7.0

Location: ABOUT 0.5 MI W OF THE N TIP OF BOLINAS LAGOON & 0.5 MI NW OF PARADISE VALLEY RD AT HORSESHOE HILL RD, N OF BOLINAS.
Detailed Location: MAPPED TO PROVIDED CAPTURE AND RELOCATION SITES.
Ecological: SEASONAL EMERGENT WETLAND AND POND. AREA NORTH OF POND WAS GRADED AND EXCAVATED IN 2015 TO BUILD ADDITIONAL STORAGE POND "1B" ON FRESH RUN FARM.
General: 1 ADULT BASKING ON BANK OF POND, ANOTHER FOUND IN UPLAND HABITAT (NEAR/ON WORKSITE) IN JUN 2015. TURTLES WERE RELOCATED TO EXISTING POND.
Owner/Manager: PVT

Occurrence No.	1267	Map Index:	74434	EO Index:	100872	Element Last Seen:	2017-06-13
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2017-06-13	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2019-06-10	

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.91789 / -122.69878	Accuracy:	non-specific area
UTM:	Zone-10 N4196748 E526475	Elevation (ft):	50
PLSS:	T01N, R08W, Sec. 14, SE (M)	Acres:	36.0

Location: STAR ROUTE FARM PONDS & MIDDLE PINE GULCH CREEK, S OF LAUFF RANCH RD, ABOUT 0.1-0.4 MI W OF OLEMA-BOLINAS RD, BOLINAS.
Detailed Location: 2006: MIDDLE PINE GULCH CREEK AND WEBER POND. MIDDLE PINE GULCH CREEK LOCATION IS NNE OF WEBER POND (POND 3A IN 2015 REPORTS). 2017: POND 3A DRAINED FOR REPAIRS, TURTLES RELOCATED TO POND 3B/NEARBY CREEK.
Ecological: SOFT-BOTTOMED FRESHWATER POND W/CATTAILS ON E EDGE. 2015: TURTLES RELOCATED FROM POND INTO NEARBY CREEK DURING WATERSHED ENHANCEMENT PROJECT; EXISTING POND GRADED, NEW LARGER POND BUILT IN PLACE. 2017: TURTLES RELOCATED DURING POND REPAIR.
General: 2 ADULT TURTLES OBSERVED BASKING AND FORAGING, 23 JUL 2015; CAUGHT AND RELOCATED INTO CREEK, AWAY FROM WORKSITE. 4 ADULTS & 1 JUVENILE CAUGHT & RELOCATED IN JUN 2017.
Owner/Manager: PVT



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Serpentine Bunchgrass

Element Code: CTT42130CA

Serpentine Bunchgrass

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G2

State: None

State: S2.2

Other:

Habitat: **General:**

Micro:

Occurrence No. 10 **Map Index:** 08341 **EO Index:** 8277 **Element Last Seen:** 1987-04-05

Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1987-04-05

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1998-07-14

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long: 37.96464 / -122.62332 **Accuracy:** 1 mile

UTM: Zone-10 N4201959 E533087 **Elevation (ft):** 1000

PLSS: T02N, R07W, Sec. 34 (M) **Acres:** 0.0

Location: BELOW CARSON RIDGE, ABOVE ALPINE LAKE, BOTH SIDES OF FAIRFAX-BOLINAS ROAD.

Detailed Location: SERPENTINE EXTENDS TO NORTH; COMMUNITY BOUNDARY UNKNOWN.

Ecological: TO E OF RD; ROLLING GRASSLAND W/NATIVES INCL POA SECUNDA, NASSELLA PULCHRA. TO W OF MAIN RD; BURNED SERP CHAP RECOVERING W/6-12 IN DIAM ELYMUS GLAUCUS, CLAYTONIA GYPSOPHILOIDES, CALYSTEGIA SUBCAULIS, LOMATIUM DASYCARPUM, OTHER NATIVES.

General: SEE [HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES](https://wildlife.ca.gov/Data/VegCamp/Natural-Communities) TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: MARIN MWD



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Caecidotea tomalensis

Element Code: ICMAL01220

Tomales isopod

Listing Status: Federal: None

CNDDB Element Ranks: Global: G2

State: None

State: S2S3

Other:

Habitat: General: INHABITS LOCALIZED FRESHWATER PONDS OR STREAMS WITH STILL OR NEAR-STILL WATER FROM SAN MATEO TO DEL NORTE COUNTY.

Micro:

Occurrence No.	1	Map Index:	08266	EO Index:	22593	Element Last Seen:	1984-01-23
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		1984-01-23	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1995-11-21	

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long: 37.93103 / -122.68082 **Accuracy:** 1/5 mile

UTM: Zone-10 N4198211 E528049 **Elevation (ft):** 100

PLSS: T01N, R08W, Sec. 12 (M) **Acres:** 0.0

Location: AUDUBON CYN RANCH (VOLUNTEER CANYON) TRIB TO BOLINAS LAGOON.

Detailed Location:

Ecological: INHABIT SHALLOW, FRESH-WATER PONDS WITH AN OVERSTORY OF RED MAPLE, WHICH PROVIDES SHADE AND LEAVES.

General: ALSO COLLECTED BY IVERSON AND CARLETON IN FEBRUARY 1972 (USNM #141809) AND SCNEIDER IN DECEMBER 1971 (CAS, #UNKNOWN).

Owner/Manager: AUDUBON CANYON RANCH



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<i>Stygobromus hyporheicus</i>		Element Code: ICMAL05D80	
hyporheic amphipod			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G1
	State: None		State: SX
	Other:		
Habitat:	General: KNOWN ONLY FROM MARIN COUNTY.		
	Micro: <input type="checkbox"/>		
Occurrence No.	1	Map Index: B5614	EO Index: 118595
Occ. Rank:	None	Presence: Possibly Extirpated	Element Last Seen: 1997-07-15
Occ. Type:	Natural/Native occurrence	Trend: Unknown	Site Last Seen: 2011-XX-XX
			Record Last Updated: 2022-12-12
Quad Summary:	Bolinas (3712286)		
County Summary:	Marin		
Lat/Long:	37.95627 / -122.70227		Accuracy: specific area
UTM:	Zone-10 N4201005 E526155		Elevation (ft): 540
PLSS:	T01N, R08W, Sec. 2 (M)		Acres: 116.0
Location:	CRONIN GULCH, JUST NORTH OF WOODVILLE & JUST SOUTH OF MCCURDY TRAIL RD, GOLDEN GATE NATIONAL RECREATION AREA.		
Detailed Location:	LOCALITY GIVEN ONLY AS "CRONAN CREEK, GOLDEN GATE NATIONAL REC. AREA," MAPPED TO EXTENT OF CRONIN GULCH AS INDICATED BY DEL00A0001.		
Ecological:	FOUND IN GRAVEL SUBSTRATE OF HYPORHEIC ZONE OF INTERMITTENT STREAM AT DEPTH OF 40 CM, TEMP 16 DEGREES C. SUBSEQUENT SEARCHES FOUND THE STREAM SUBSTRATE HIGHLY EMBEDDED WITH SILTS AND FINES; STREAM MAY NO LONGER CONTAIN SUITABLE HABITAT.		
General:	HOLOTYPE FEMALE, 2 FEMALE PARATYPES, AND 2 JUVENILES COLLECTED ON 15 JUL 1997. SEARCHES IN 2010 AND 2011 DID NOT DETECT THE SPECIES; THE CREEK MAY NO LONGER CONTAIN SUITABLE HABITAT.		
Owner/Manager:	NPS-GGNRA		



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Cicindela hirticollis gravida

Element Code: IICOL02101

sandy beach tiger beetle

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G5T2

State: None

State: S2

Other:

Habitat: **General:** INHABITS AREAS ADJACENT TO NON-BRACKISH WATER ALONG THE COAST OF CALIFORNIA FROM SAN FRANCISCO BAY TO NORTHERN MEXICO.

Micro: CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE. SUBTERRANEAN LARVAE PREFER MOIST SAND NOT AFFECTED BY WAVE ACTION.

Occurrence No.	40	Map Index:	60104	EO Index:	60140	Element Last Seen:	1945-04-14
Occ. Rank:	None	Presence:	Extirpated	Site Last Seen:		1945-04-14	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2005-02-18	

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.90494 / -122.66046	Accuracy:	non-specific area
UTM:	Zone-10 N4195322 E529849	Elevation (ft):	10
PLSS:	T01N, R07W, Sec. 20 (M)	Acres:	92.1

Location: STINSON BEACH.

Detailed Location:

Ecological:

General: HISTORICAL RECORD.

Owner/Manager: UNKNOWN



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<i>Hydrochara rickseckeri</i>		Element Code: IICOL5V010	
Ricksecker's water scavenger beetle			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G2?
	State: None		State: S2?
	Other:		
Habitat:	General: AQUATIC.		
	Micro: <input type="checkbox"/>		
Occurrence No.	2	Map Index: 08236	EO Index: 22636
Occ. Rank:	Unknown	Presence: Presumed Extant	Element Last Seen: 1940-01-27
Occ. Type:	Natural/Native occurrence	Trend: Unknown	Site Last Seen: 1940-01-27
			Record Last Updated: 2005-03-21
Quad Summary:	Bolinias (3712286)		
County Summary:	Marin		
Lat/Long:	37.91214 / -122.70248	Accuracy:	1 mile
UTM:	Zone-10 N4196108 E526152	Elevation (ft):	160
PLSS:	T01N, R08W, Sec. 23 (M)	Acres:	0.0
Location:	VICINITY OF BOLINAS, ON THE SOUTH END OF POINT REYES NATIONAL SEASHORE, MARIN COUNTY.		
Detailed Location:			
Ecological:	MEMBERS OF THE FAMILY HYDROPHILIDAE ARE SCAVENGERS, WHOSE AQUATIC LARVAE ARE PREDACEOUS; NOTHING IS KNOWN OF HABITS SPECIFIC TO THIS TAXA.		
General:	MUSEUM RECORD: CAS #001, COLLECTED BY H. P. CHANDLER.		
Owner/Manager:	PVT, NPS?, MRN COUNTY OSD?		



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<i>Bombus occidentalis</i>		Element Code: IIHYM24252	
western bumble bee			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G3
	State: Candidate Endangered		State: S1
	Other: IUCN_VU-Vulnerable, USFS_S-Sensitive		
Habitat:	General: ONCE COMMON AND WIDESPREAD, SPECIES HAS DECLINED PRECIPITOUSLY FROM CENTRAL CA TO SOUTHERN B.C., PERHAPS FROM DISEASE.		
	Micro: <input type="checkbox"/>		

Occurrence No.	195	Map Index:	08236	EO Index:	100028	Element Last Seen:	1953-09-10
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1953-09-10	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2015-12-21		
Quad Summary:	Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.91214 / -122.70248		Accuracy:	1 mile			
UTM:	Zone-10 N4196108 E526152		Elevation (ft):	200			
PLSS:	T01N, R08W, Sec. 23 (M)		Acres:	0.0			
Location:	BOLINAS.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF THE TOWN OF BOLINAS, BETWEEN SAN FRANCISCO AND POINT REYES.						
Ecological:							
General:	COLLECTED 10 SEP 1953.						
Owner/Manager:	UNKNOWN						

<i>Bombus caliginosus</i>		Element Code: IIHYM24380	
obscure bumble bee			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G2G3
	State: None		State: S1S2
	Other: IUCN_VU-Vulnerable		
Habitat:	General: COASTAL AREAS FROM SANTA BARBARA COUNTY NORTH TO WASHINGTON STATE.		
	Micro: FOOD PLANT GENERA INCLUDE BACCHARIS, CIRSIUM, LUPINUS, LOTUS, GRINDELIA AND PHACELIA.		

Occurrence No.	101	Map Index:	08246	EO Index:	97836	Element Last Seen:	1961-05-07
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1961-05-07	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2015-07-07		
Quad Summary:	Bolinas (3712286), San Geronimo (3812216)						
County Summary:	Marin						
Lat/Long:	38.01047 / -122.70166		Accuracy:	1 mile			
UTM:	Zone-10 N4207019 E526189		Elevation (ft):	200			
PLSS:	T02N, R08W, Sec. 14 (M)		Acres:	0.0			
Location:	LAGUNITAS.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE GENERAL VICINITY OF LAGUNITAS.						
Ecological:							
General:	COLLECTED 7 MAY 1961.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	102	Map Index: 96666	EO Index: 97838	Element Last Seen:	1983-05-26
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1983-05-26
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-07-08
Quad Summary:	Bolinás (3712286), San Geronimo (3812216)				
County Summary:	Marin				
Lat/Long:	37.98895 / -122.64873		Accuracy:	1 mile	
UTM:	Zone-10 N4204647 E530844		Elevation (ft):		
PLSS:	T02N, R07W, Sec. 29 (M)		Acres:	0.0	
Location:	SAN GERONIMO RIDGE (CARSON RIDGE) AND PINE MOUNTAIN TRUCK ROAD, WEST OF FAIRFAX.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB IN THE GENERAL VICINITY OF SAN GERONIMO RIDGE ROAD AND PINE MOUNTAIN TRUCK ROAD.				
Ecological:					
General:	A SET OF COLLECTIONS WAS MADE 30 MAY 1959, 26 APR 1961, 20 MAY 1967, 24 MAY 1967, 18 MAY 1968, AND 26 MAY 1983.				
Owner/Manager:	MARIN MWD, MRN COUNTY				
Occurrence No.	103	Map Index: 96658	EO Index: 97840	Element Last Seen:	1960-02-27
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1960-02-27
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-07-07
Quad Summary:	Bolinás (3712286), San Geronimo (3812216)				
County Summary:	Marin				
Lat/Long:	37.98811 / -122.69365		Accuracy:	1 mile	
UTM:	Zone-10 N4204541 E526900		Elevation (ft):	600	
PLSS:	T02N, R08W, Sec. 25 (M)		Acres:	0.0	
Location:	KENT LAKE.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB TO NORTHERN PORTION OF KENT LAKE.				
Ecological:					
General:	COLLECTED 27 FEB 1960.				
Owner/Manager:	MARIN MWD				
Occurrence No.	104	Map Index: 96673	EO Index: 97848	Element Last Seen:	1978-05-07
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1978-05-07
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-07-08
Quad Summary:	San Rafael (3712285), Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.95768 / -122.63156		Accuracy:	3/5 mile	
UTM:	Zone-10 N4201183 E532366		Elevation (ft):	1000	
PLSS:	T01N, R07W, Sec. 04 (M)		Acres:	0.0	
Location:	LIBERTY GULCH AND LILY LAKE, NEAR ALPINE LAKE.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB TO GENERAL VICINITY OF LIBERTY GULCH AND LILY LAKE. COLLECTION FROM ALPINE LAKE ALSO ATTRIBUTED TO THIS LOCATION.				
Ecological:					
General:	COLLECTIONS WAS MADE FROM THIS VICINITY IN 1954, 1955, 1956, 1957, 1959, 1970, 1972, 1973, 1975, 1977, AND 1978.				
Owner/Manager:	MARIN MWD				



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Occurrence No.	105	Map Index: 96677	EO Index: 97858	Element Last Seen:	1967-07-20
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1967-07-20
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-07-08

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.89770 / -122.70242	Accuracy:	2/5 mile
UTM:	Zone-10 N4194507 E526162	Elevation (ft):	50
PLSS:	T01N, R08W, Sec. 26 (M)	Acres:	0.0

Location: DUXBURY BAY, BOLINAS.

Detailed Location: EXACT LOCATION IS SOMEWHAT UNCERTAIN. MAPPED BY CNDDDB IN THE VICINITY OF DUXBURY POINT AND DUXBURY REEF. PRESUMABLY DUXBURY BAY IS THE AREA JUST EAST OF THE REEF. COLLECTIONS FROM BOLINAS ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.

Ecological:

General: A SET OF COLLECTIONS WAS MADE 31 JUL 1966, 9 JUL 1967, AND 20 JUL 1967.

Owner/Manager: UNKNOWN

Occurrence No.	106	Map Index: 08311	EO Index: 97859	Element Last Seen:	1951-05-06
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1951-05-06
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-07-08

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.90190 / -122.64620	Accuracy:	1 mile
UTM:	Zone-10 N4194990 E531103	Elevation (ft):	50
PLSS:	T01N, R07W, Sec. 29 (M)	Acres:	0.0

Location: STINSON BEACH.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB TO GENERAL VICINITY OF STINSON BEACH.

Ecological:

General: COLLECTED 6 MAY 1951.

Owner/Manager: UNKNOWN



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Trachusa gummifera

Element Code: IIHYM80010

San Francisco Bay Area leaf-cutter bee

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G1

State: None

State: S1

Other:

Habitat: **General:** FLIGHT PERIOD FROM MAY TO JUNE. DOCUMENTED VISITING PICKERINGIA FLOWERS BUT EXAMINATION OF POLLEN LOADS ON FEMALES AND POLLEN IN BROOD CELLS INDICATE THE SPECIES IS POLYLECTIC.

Micro:

Occurrence No.	1	Map Index:	59955	EO Index:	59991	Element Last Seen:	1977-06-13
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1977-06-13	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2020-07-22	

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96882 / -122.62899	Accuracy:	non-specific area
UTM:	Zone-10 N4202421 E532587	Elevation (ft):	1130
PLSS:	T02N, R07W, Sec. 33 (M)	Acres:	77.1

Location: CARSON RIDGE, NEAR PINE MOUNTAIN ROAD, NW OF FAIRFAX-BOLINAS ROAD, ABOUT 2 MILES SW OF THE TOWN OF FAIRFAX.

Detailed Location:

Ecological:

General: HOLOTYPE FEMALE AND ALLOTYPE MALE COLLECTED ON 11 JUN 1960 AND DEPOSITED IN CAS. 42 PARATYPES AND OTHERS COLLECTED AND DEPOSITED IN VARIOUS COLLECTIONS; COLLECTION EVENTS IN 1959, 1960, 1962, 1974, AND 1977.

Owner/Manager: MARIN MWD



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<i>Callophrys mossii marinensis</i>		Element Code: IILEPE2207	
Marin elfin butterfly			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G4T1
	State: None		State: S2
	Other:		
Habitat:	General: FOUND ONLY IN THE REDWOOD FOREST AREAS OF MARIN COUNTY.		
	Micro: LARVAE COLLECTED AND REARED ON SEDUM SPATHULIFOLIUM.		

Occurrence No.	3	Map Index: B2361	EO Index: 114286	Element Last Seen:	2014-04-26
Occ. Rank:	Poor		Presence: Presumed Extant	Site Last Seen:	2014-04-26
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-08-15

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.94209 / -122.64602	Accuracy:	1/10 mile
UTM:	Zone-10 N4199449 E531103	Elevation (ft):	539
PLSS:	T01N, R07W, Sec. 8 (M)	Acres:	18.0

Location: NEAR ALPINE LAKE, ABOVE LAGUNITAS CREEK ABOUT 0.4 MILES WNW OF ALPINE DAM.
Detailed Location: 1972 LOCALITY: ABOVE LAGUNITAS CREEK, ALONG A DIRT ROAD 0.5 AIR MILES WNW OF ALPINE DAM, 480-520' ELEV. MAPPED TO LOCATION GIVEN FOR 2014 DETECTION. ALSO REFERRED TO AS ALPINE DAM OR KENT PUMP ROAD SITE.
Ecological: ARNOLD, 1983: C. MOSSII COLONY "NEAR ALPINE LAKE" WAS PHENOTYPICALLY DISTINCT FROM TYPICAL BAYENSIS. EMMEL, 1998: WITHIN REDWOOD FOREST AREA. 2014: A FEW SEDUM FOOD PLANTS (1 FT^2) ON VERTICAL ROAD CUT IN DOUGLAS-FIR/CANYON LIVE OAK FOREST.
General: LARVAE DETECTED IN MAY 1972. AT LEAST 1 LARVA OBSERVED ON 26 APR 2014.
Owner/Manager: MMWD

<i>Danaus plexippus plexippus pop. 1</i>		Element Code: IILEPP2012	
monarch - California overwintering population			
Listing Status:	Federal: Proposed Threatened	CNDDB Element Ranks:	Global: G4T1T2Q
	State: None		State: S2
	Other: IUCN_EN-Endangered, USFS_S-Sensitive		
Habitat:	General: WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO.		
	Micro: ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.		



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Occurrence No.	10	Map Index: 08235	EO Index: 4856	Element Last Seen:	2008-10-01
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2013-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2016-01-07
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.89862 / -122.70370		Accuracy:	non-specific area	
UTM:	Zone-10 N4194609 E526049		Elevation (ft):	140	
PLSS:	T01N, R08W, Sec. 26 (M)		Acres:	22.0	
Location:	ALONG MAPLE RD BETWEEN CHERRY DR & ELM RD, AND ALONG ELM RD BETWEEN HAWTHORNE RD & KALE RD, BOLINAS.				
Detailed Location:	3 ADJACENT SITES. NE: ELM RD BETWEEN IRIS & HAWTHORNE; XERCES #2917. MIDDLE: ELM X KALE. SW: 1985 DETECTION AT 135 MAPLE, JUST OFF ELM; 1999, ON BOTH SIDES OF MAPLE, N OF CHERRY, PRIMARILY NW CORNER OF INTERSECTION; XERCES #2898.				
Ecological:	NE: EUCALYPTUS GROVE BISECTED BY ELM RD; COMPROMISED BY TREE TRIMMING & WINDFALLS. SW: AUTUMNAL SITE IN EUCALYPTUS TREES LINING EITHER SIDE OF MAPLE & ELM; IN 1997-98, TREES ON EAST SIDE OF MAPLE NORTH OF CHERRY WERE CUT DOWN.				
General:	COUNT/YEAR, NE: 130/1993-94; 0/95; 1/96; 0/98 & 99. MID: 75/2008. SW: UNK#/85; 500+/1986; 0/JAN 1989; 400-1450/90-91; 0/93 -96; 40K/19 OCT 97 (0 BY 3 JAN 98); 1500/2000; 0/01 & 02; 5/03; 122/04; ZERO IN 06, 09, 10, 11, 12, & 13.				
Owner/Manager:	PVT				
Occurrence No.	11	Map Index: 08233	EO Index: 25831	Element Last Seen:	2012-11-XX
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2014-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Fluctuating	Record Last Updated:	2016-01-07
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.90695 / -122.70668		Accuracy:	80 meters	
UTM:	Zone-10 N4195532 E525785		Elevation (ft):	160	
PLSS:	T01N, R08W, Sec. 23 (M)		Acres:	0.0	
Location:	"PURPLE GATE" SITE, ALONG PURPLE GATE RD; W SIDE OF MESA RD, ABOUT 0.2 MI SW OF THE EVERGREEN RD JUNCTION, BOLINAS.				
Detailed Location:	XERCES SITE #2899. SITE ON PRIVATE ROAD LABELED AS "PURPLE GATE RD" IN GOOGLE EARTH (NAMED FOR GATE AT ENTRANCE OF ROAD).				
Ecological:	LARGEST SITE IN NORTHERN CALIFORNIA IN 1993-94. ORIGINAL ROOST IN MONTEREY CYPRESS WINDROW ON BLUFF TO S OF DRAINAGE (CUT DOWN IN 1986). SUBSEQUENT ROOST IN EUCALYPTUS IN E-W DRAINAGE N OF PURPLE GATE ROAD.				
General:	MAX COUNT/YEAR: 5K/1987-88, 100S/88-89, 20-25K/90-91, 200+/92, 25K/93-94, 20/94, 5K/JAN 96, 5K+/96, 70-85K/97, 8050/NOV 98, 1500/99, 12050/2000, 3/01, 2K/02, 600/03, 7200/04, 130/05, 2600/06, 0/07, 20/08, 27/09, 0/10, 400/11, 530/12, 0/14.				
Owner/Manager:	PVT				



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Occurrence No.	12	Map Index: 08237	EO Index: 6867	Element Last Seen:	1997-10-19
Occ. Rank:	None		Presence: Possibly Extirpated	Site Last Seen:	1999-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Fluctuating	Record Last Updated:	2016-01-07
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.90346 / -122.70117		Accuracy:	80 meters	
UTM:	Zone-10 N4195146 E526270		Elevation (ft):	160	
PLSS:	T01N, R08W, Sec. 23, SW (M)		Acres:	0.0	
Location:	NE CORNER OF GROVE AND ALDER ROADS, BOLINAS.				
Detailed Location:	XERCES SITE #2900.				
Ecological:	THIS WAS THE LARGEST CLUSTER SITE OBSERVED ON THE BOLINAS PENINSULA IN 1988-89. ROOSTS WERE IN DENSE GROVE OR WINDROW OF EUCALYPTUS TREES SURROUNDING A RESIDENTIAL LOT.				
General:	100S OBSERVED FEB 1988. 500+ OBS 8 JAN 89. 2200 OBS 1990-91. NONE OBS 1992-93. 15K OBS 1993-94. NONE OBS 1994-95. 25 FLYERS OBS JAN 1996. 10K OBS 19 OCT 1997; NONE BY 3 JAN 98. 0 OBS NOV 1999. TREES REMOVED.				
Owner/Manager:	PVT				
Occurrence No.	13	Map Index: 08248	EO Index: 15197	Element Last Seen:	2000-11-XX
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2014-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Decreasing	Record Last Updated:	2016-01-07
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.90350 / -122.69209		Accuracy:	80 meters	
UTM:	Zone-10 N4195153 E527068		Elevation (ft):	120	
PLSS:	T01N, R08W, Sec. 24, S (M)		Acres:	0.0	
Location:	VICINITY OF TERRACE AVENUE AT MARIN WAY, BOLINAS.				
Detailed Location:	XERCES SITE #2901.				
Ecological:	KNOWN SITE SINCE 1970S. PLANTED EUCALYPTUS & MONTEREY CYPRESS IN MOIST COASTAL CANYON BELOW ROAD; EUCS, CYPRESS, & PINE ON HILL ABOVE ROAD. 1989: RECENT DECLINE MAY BE DUE TO REMOVAL/TRIMMING OF A PROTECTIVE CYPRESS HEDGEROW TO NW.				
General:	COUNT/YEAR: 20-30K/1982; 20K/84; 25K/87-88; 10/JAN 89 (WINTER STORM); 6K/90-91; 10K/92 (0/JAN 93); 0/94-95 & 95-96; 3K/96; 25K/97 (0/JAN 98); 2050/98; 1K/99; 2K/2000; ZERO 01, 02, 03, 06, 07, 08, 09, 10, 11, 12, & 13; 2/14.				
Owner/Manager:	AUDUBON CANYON RANCH, PVT				



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Occurrence No.	16	Map Index: 08323	EO Index: 22969	Element Last Seen:	2013-11-XX
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2014-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Fluctuating	Record Last Updated:	2016-01-07
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.89980 / -122.64199		Accuracy:	1/10 mile	
UTM:	Zone-10 N4194758 E531474		Elevation (ft):	100	
PLSS:	T01N, R07W, Sec. 28, NW (M)		Acres:	0.0	
Location:	"BIG YELLOW HOUSE" SITE, VICINITY OF SHORELINE HWY (HWY 1) IN THE VICINITY OF CALLE DEL PINOS, STINSON BEACH.				
Detailed Location:	ALSO KNOWN AS "CHAPMAN RAVINE" SITE. FROM SITE DESCRIPTIONS AND MAPS, IT APPEARS THE EPONYMOUS HOUSE IS THE HISTORIC EASKOOT HOUSE AT 3548 SHORELINE HWY. XERCES SITE #2903.				
Ecological:	KNOWN SINCE THE 1950S, THE LARGEST SITE NORTH OF NATURAL BRIDGES. OVERWINTERING ROOST IN OLD EUCALYPTUS & CYPRESS GROVE ADJACENT TO A CREEK. AFTER TREE REMOVAL CA. 1988-89, MONARCHS SHIFTED DEEPER INTO THE GROVE. PROTECTED BY EASEMENT?				
General:	COUNT/YEAR: 100K/79; 5-12K/80-82-84-85; 5K+/87-88; 15K/90-91; 1S/JAN 93 & 93-94; 500/95-96; 2K/96; 70K/97-98; 4K/98-99; 3K/99; 15150/2000; 1K/01; 2K/02; 2K/03; 8050/04; 0/05; 0/06; 0/07; 1S/08; 49/09; 0/10; 800/11; 0/12; 503/13; 2/14.				
Owner/Manager:	PVT, NPS-GGNRA				
Occurrence No.	17	Map Index: 08185	EO Index: 22968	Element Last Seen:	1991-01-XX
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2011-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-12-28
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.93560 / -122.74889		Accuracy:	1/10 mile	
UTM:	Zone-10 N4198700 E522065		Elevation (ft):	250	
PLSS:	T01N, R08W, Sec. 09, W (M)		Acres:	0.0	
Location:	ABOUT 0.1 MILE NW OF THE PALOMARIN TRAILHEAD, AT THE WEST END OF MESA ROAD, POINT REYES NATIONAL SEASHORE.				
Detailed Location:	XERCES SITE #2904, MAPPED TO PROVIDED SHAPEFILE.				
Ecological:	PRIMARILY AUTUMNAL SITE. ROOSTS IN AN ISOLATED EUCALYPTUS GROVE, WITH A FEW DOUGLAS-FIRS, SURROUNDED BY COASTAL SAGE SCRUB. CACHE OF WINGS REPORTEDLY OBSERVED IN 1982 MAY HAVE INDICATED PREDATION PROBLEM.				
General:	100S OBSERVED 1 JAN 1982. LOW 100S OBS 17 FEB 85. 5000 OBS 1990-91. NONE OBS JAN 1993, 1993-94, OR 1994-95. 1 FLYER OBS 6 JAN 96. 0 OBS 3 JAN 98. 0 OBS 1998-99. 0 OBS 1 OCT 2008. 0 OBS 21 NOV 2011.				
Owner/Manager:	NPS-POINT REYES NS				



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Occurrence No.	18	Map Index: 08324	EO Index: 22967	Element Last Seen:	1985-01-21
Occ. Rank:	None		Presence: Extirpated	Site Last Seen:	1996-01-06
Occ. Type:	Natural/Native occurrence		Trend: Decreasing	Record Last Updated:	2016-01-07
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.90084 / -122.64325		Accuracy:	80 meters	
UTM:	Zone-10 N4194873 E531363		Elevation (ft):	180	
PLSS:	T01N, R07W, Sec. 29, NE (M)		Acres:	0.0	
Location:	"PUENTE DEL MAR" (ROAD) SITE, STINSON BEACH.				
Detailed Location:	THE LARGE CYPRESS THAT MADE UP THIS SITE WAS BEING CONSIDERED BY THE STINSON BEACH CITY COUNCIL TO BE NAMED "THE BUTTERFLY TREE" OF THE CITY BEFORE BEING BLOWN DOWN IN 1987.				
Ecological:	ROOSTED ON MAIN BRANCH OF A LARGE CYPRESS TREE; THIS TREE FELL (OR WAS CRITICALLY DAMAGED?) DURING WINTER STORM IN 1987. SAKAI (CIRCA 2000) HYPOTHESIZED THAT AFTER 1987 THE MONARCHS MOVED TO THE YELLOW HOUSE SITE (OCC#16).				
General:	FIRST OBSERVED 27 JAN 1979. A HIDDEN CLUSTER OF 5-10K MONARCHS WAS FOUND ON 8 DEC 1984 INSIDE THE GROVE. 35-40K OBSERVED 21 JAN 1985. NONE OBSERVED 25 OCT 1987 & 6 JAN 1996, SITE PRESUMED LOST.				
Owner/Manager:	PVT				
Occurrence No.	232	Map Index: 26245	EO Index: 4855	Element Last Seen:	2013-11-XX
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2014-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-12-28
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.89830 / -122.70929		Accuracy:	1/10 mile	
UTM:	Zone-10 N4194571 E525558		Elevation (ft):	20	
PLSS:	T01N, R08W, Sec. 26, NW (M)		Acres:	0.0	
Location:	"AGATE BEACH" SITE, JUST EAST OF AGATE BEACH IN THE VICINITY OF ALDER RD/OCEAN PKWY & SYCAMORE RD, BOLINAS.				
Detailed Location:	ALSO KNOWN AS "ALDER RD, VORTEX (LARCH, OCEAN ST)" SITE. LOCATED ALONG AN UNNAMED CREEK DRAINING INTO AGATE BEACH. A DETECTION IN OCT 2008 FOUND 3 SMALL CLUSTERS AT "WEST END OF LARCH RD EUCALYPTUS GROVE." XERCES SITE #2912.				
Ecological:	AUTUMNAL SITE. HABITAT CONSISTS OF A CREEK AREA LINED WITH EUCALYPTUS.				
General:	MAX COUNT/YEAR: 500/JAN-FEB 1990; 0/NOV 1990, 1992-93, 9 JAN 1994, JAN 1995, & 3 JAN 1998; 2300/2002; 10400/03; 8880/04; 950/05; 3520/06; 1K/07; 390/08; 1700/09; 0/10; 7700/11; 150/12; 1013/13, 3/14.				
Owner/Manager:	MRN COUNTY, PVT				



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Occurrence No.	233	Map Index: 26241	EO Index: 4849	Element Last Seen:	1990-11-XX
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	1999-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-12-11
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.91561 / -122.70977		Accuracy:	non-specific area	
UTM:	Zone-10 N4196492 E525510		Elevation (ft):	200	
PLSS:	T01N, R08W, Sec. 14, SW (M)		Acres:	15.0	
Location:	EAST AND WEST SIDES OF MESA ROAD AT THE ROSE LANE INTERSECTION, NORTH OF BOLINAS.				
Detailed Location:	TWO NEIGHBORING SITES REPRESENTED. EAST: FORMER VETERINARY HOSPITAL; ROOST TREES BEHIND A RESIDENCE; XERCES SITE #2914. WEST: UNNAMED DRAINAGE JUST WEST OF MESA RD; XERCES SITE #2913.				
Ecological:	EAST: PINES, CYPRESSES, AND FIRS, PROBABLY PLANTED IN THE 1950'S; IN 1993, OWNER WHO HAD LIVED THERE SINCE 1979 SAID BUTTERFLIES ROOSTED EVERY YEAR. WEST: DRAINAGE DENSELY VEGETATED WITH EUCALYPTUS.				
General:	EAST: 1000S OBSERVED NOV 1990. NONE OBS IN SINGLE VISIT 1992-93 OR SEVERAL VISITS IN 1994-95. 10 FLYERS OBS 6 JAN 1996. WEST: 10,000 OBSERVED, 1990-91; 0 OBS 1992-93; 1995-96, OR 1997-98; 0 OBS DURING 1999 THANKSGIVING COUNT.				
Owner/Manager:	PVT				
Occurrence No.	235	Map Index: 26243	EO Index: 15198	Element Last Seen:	2004-11-XX
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2014-11-XX
Occ. Type:	Natural/Native occurrence		Trend: Fluctuating	Record Last Updated:	2016-01-14
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.91073 / -122.69013		Accuracy:	specific area	
UTM:	Zone-10 N4195955 E527238		Elevation (ft):	150	
PLSS:	T01N, R08W, Sec. 24, NW (M)		Acres:	10.0	
Location:	"BOLINAS SEWAGE FACILITY" SITE, JUST SOUTH OF THE INTERSECTION OF OLEMA-BOLINAS ROAD AND MESA ROAD, BOLINAS.				
Detailed Location:	XERCES SITE #2915.				
Ecological:	ROOST TREES CONSISTED OF AN "L-SHAPED" GROVE OF EUCALYPTUS BORDERING THE ROADWAY, EXTENDING AS WINDROWS FOR 0.25 MI ALONG THE MESA, IN AN EAST-WEST ORIENTATION; MARSH NEARBY.				
General:	1500-2000 OBSERVED 9 JAN 1994. 0 OBS 6 JAN 1995. 600 OBS 6 JAN 1996. NONE OBS 3 JAN 1998. 0 OBS NOV 1999. 1500 OBS 24 NOV 2000. COUNT/YEAR: 0/2001; 0/02; 5/03; 122/04; 0/06; ZERO EACH YEAR FROM 2009 - 2014.				
Owner/Manager:	PVT				



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Occurrence No.	236	Map Index:	26240	EO Index:	4851	Element Last Seen:	1991-XX-XX
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2011-11-21	Record Last Updated:	2016-01-14
Occ. Type:	Natural/Native occurrence		Trend:	Decreasing			
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.92144 / -122.72377		Accuracy:	80 meters			
UTM:	Zone-10 N4197134 E524278		Elevation (ft):	200			
PLSS:	T01N, R08W, Sec. 15 (M)		Acres:	0.0			
Location:	WEST SIDE OF MESA ROAD, ABOUT 0.9 MI NW OF THE ROSE RD INTERSECTION & 0.9 MI SE OF THE POINT REYES BIRD OBSERVATORY.						
Detailed Location:	"DUXBURY REEF" SITE, JUST NORTH OF DUXBURY REEF TRAILHEAD. XERCES SITE #2916.						
Ecological:	AUTUMNAL SITE. HABITAT CONSISTS OF A EUCALYPTUS GROVE IN AN UNNAMED DRAINAGE, SURROUNDED BY MARINE TERRACE THAT IS GRAZED BY CATTLE.						
General:	5000 OBSERVED ROOSTING IN WINTER 1990-91 (5 SITE VISITS). NONE OBSERVED DURING SINGLE SITE VISITS IN WINTER 1992-93 AND WINTER 1993-94. NONE OBS 6 JAN 1996, 3 JAN 1998, OR NOV 1999. NONE OBS 21 NOV 2011.						
Owner/Manager:	PVT						

Occurrence No.	316	Map Index:	33364	EO Index:	13516	Element Last Seen:	1993-XX-XX
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	1999-11-XX	Record Last Updated:	2016-01-07
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.91459 / -122.72700		Accuracy:	specific area			
UTM:	Zone-10 N4196373 E523996		Elevation (ft):	150			
PLSS:	T01N, R08W, Sec. 15, SW (M)		Acres:	37.6			
Location:	"BOLINAS MCI" SITE, ABOUT 1 MILE WEST OF ROSE LN AT MESA RD, NW OF BOLINAS, POINT REYES NS.						
Detailed Location:	451 MESA RD. CYPRESS GROVES SURROUND A COMPLEX OF BUILDINGS ORIGINALLY USED BY MCI (NOW OCCUPIED BY A NON-PROFIT GROUP, USED AS A RETREAT). XERCES SITE #2918.						
Ecological:	HABITAT CONSISTS OF GROVES OF CYPRESSES (SOME PINES). 1997 SURVEYOR CHARACTERIZED THIS AS A "GOOD AUTUMNAL SITE."						
General:	REPORTEDLY, CLUSTERS OBSERVED REGULARLY FROM ABOUT 1985 TO 1992-93. NONE OBSERVED 4 JAN 1995. 5 FLYERS SEEN 6 JAN 1996. 20 OBERSEVED SUNNING ON 3 JAN 1997. NONE SEEN DURING 1999 THANKSGIVING COUNT.						
Owner/Manager:	NPS-POINT REYES NS						

Vespericola marinensis				Element Code: IMGASA4140			
Marin hesperian							
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G2		
	State:	None		State:	S2		
	Other:						
Habitat:	General:	FOUND IN MOIST SPOTS IN COASTAL BRUSHFIELD AND CHAPARRAL VEGETATION IN MARIN COUNTY.					
	Micro:	UNDER LEAVES OF COW-PARSNIP, AROUND SPRING SEEPS, IN LEAFMOLD ALONG STREAMS, IN ALDER WOODS AND MIXED EVERGREEN FOREST.					



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Occurrence No.	14	Map Index: 58674	EO Index: 58710	Element Last Seen: XXXX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: XXXX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2004-12-16

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.91822 / -122.71981	Accuracy:	specific area
UTM:	Zone-10 N4196778 E524626	Elevation (ft):	220
PLSS:	T01N, R08W, Sec. 15 (M)	Acres:	67.5

Location: MESA ROAD, ABOUT 3 KM NW OF BOLINAS.

Detailed Location:

Ecological:

General: NO ADDITIONAL COLLECTING INFORMATION GIVEN; SPECIMENS DEPOSITED IN COLLECTIONS OF BARRY ROTH AND SANTA BARBARA MUSEUM OF NATURAL HISTORY.

Owner/Manager: NPS-POINT REYES NS

Occurrence No.	15	Map Index: 58675	EO Index: 58711	Element Last Seen: XXXX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: XXXX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2004-12-16

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.93190 / -122.68836	Accuracy:	specific area
UTM:	Zone-10 N4198305 E527386	Elevation (ft):	100
PLSS:	T01N, R08W, Sec. 12 (M)	Acres:	99.8

Location: NORTH END OF BOLINAS LAGOON.

Detailed Location: VICINITY OF AUDUBON CANYON RANCH AND GOLDEN GATE NATIONAL RECREATION AREA.

Ecological: FOUND IN DEBRIS ABOVE HIGH TIDE LINE.

General: NO ADDITIONAL COLLECTING INFORMATION GIVEN; SPECIMEN(S) IN COLLECTION OF BARRY ROTH.

Owner/Manager: NPS-GGNRA, AUDUBON CYN RANCH

Occurrence No.	16	Map Index: 58676	EO Index: 58712	Element Last Seen: 1991-01-16
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1991-01-16
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2012-04-03

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94005 / -122.63959	Accuracy:	1/10 mile
UTM:	Zone-10 N4199224 E531668	Elevation (ft):	580
PLSS:	T01N, R07W, Sec. 09 (M)	Acres:	0.0

Location: LAGUNITAS CREEK FROM ALPINE DAM TO ABOUT 0.3 KM BELOW ALPINE DAM.

Detailed Location:

Ecological:

General: SPECIMEN(S) IN THE COLLECTIONS OF BARRY ROTH AND SANTA BARBARA MUSEUM OF NATURAL HISTORY #36088, COLLECTED 16 JAN 1991.

Owner/Manager: MRN COUNTY, MARIN MWD



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Occurrence No.	17	Map Index: 08311	EO Index: 58714	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2004-12-16
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.90190 / -122.64620		Accuracy:	1 mile	
UTM:	Zone-10 N4194990 E531103		Elevation (ft):	50	
PLSS:	T01N, R07W, Sec. 29 (M)		Acres:	0.0	
Location:	NEAR STINSON BEACH.				
Detailed Location:					
Ecological:					
General:	NO ADDITIONAL COLLECTING INFORMATION GIVEN. SPECIMEN(S) DEPOSITED IN CAS.				
Owner/Manager:	NPS-GGNRA, DPR-MT TAMALPAIS SP				

<i>Pomatiopsis binneyi</i>	Element Code: IMGASJ9010				
robust walker					
Listing Status:	Federal: None		CNDDB Element Ranks:	Global: G1	
	State: None			State: S1	
	Other:				
Habitat:	General: FRESHWATER.				
	Micro: <input type="checkbox"/>				

Occurrence No.	2	Map Index: 68413	EO Index: 68646	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2007-03-08
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.90822 / -122.69187		Accuracy:	2/5 mile	
UTM:	Zone-10 N4195677 E527086		Elevation (ft):	150	
PLSS:	T01N, R08W, Sec. 24 (M)		Acres:	0.0	
Location:	BOLINAS.				
Detailed Location:					
Ecological:					
General:	ANSP #27852 CONSISTS OF THE HOLOTYPE OF THIS SPECIES AND ABOUT 70 ADDITIONAL SPECIMENS. NO COLLECTION DATE IS GIVEN. HOLOTYPE COLLECTED BY J. ROWELL.				
Owner/Manager:	UNKNOWN				



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<i>Pomatiopsis californica</i>		Element Code: IMGASJ9020	
Pacific walker			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G1
	State: None		State: S1
	Other: IUCN_DD-Data Deficient		
Habitat:	General: FRESHWATER.		
	Micro: <input type="checkbox"/>		

Occurrence No.	4	Map Index: B7856	EO Index: 120915	Element Last Seen: 1965-02-18
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1965-02-18
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2021-10-15

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.90844 / -122.65038	Accuracy:	1/5 mile
UTM:	Zone-10 N4195714 E530734	Elevation (ft):	66
PLSS:	T01N, R07W, Sec. 20, NE (M)	Acres:	70.0

Location: STINSON GULCH, NEAR HIGHWAY 1, GOLDEN GATE NATIONAL RECREATION AREA, JUST NW OF THE COMMUNITY OF STINSON BEACH.
Detailed Location:
Ecological: DESCRIBED AS A LOWLAND HABITAT ON THE EDGE OF BOLINAS BAY.
General: COLLECTIONS WERE MADE HERE IN 1962 AND 1965.
Owner/Manager: NPS-GGNRA



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<i>Mielichhoferia elongata</i>		Element Code: NBMUS4Q022	
elongate copper moss			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G5
	State: None		State: S3S4
	Other: Rare Plant Rank - 4.3, USFS_S-Sensitive		
Habitat:	General: CISMONTANE WOODLAND.		
	Micro: MOSS GROWING ON VERY ACIDIC, METAMORPHIC ROCK OR SUBSTRATE; USUALLY IN HIGHER PORTIONS IN FENS. OFTEN ON SUBSTRATES NATURALLY ENRICHED WITH HEAVY METALS (E.G. COPPER) SUCH AS MINE TAILINGS. 5-1085 M.		

Occurrence No.	8	Map Index:	64584	EO Index:	64663	Element Last Seen:	2002-05-04
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	2014-07-09
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.93246 / -122.68801	Accuracy:	2/5 mile
UTM:	Zone-10 N4198368 E527416	Elevation (ft):	100
PLSS:	T01N, R08W, Sec. 12 (M)	Acres:	0.0

Location: POINT REYES BIRD OBSERVATORY, ABOUT 5 MILES NORTH OF BOLINAS.
Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB IN THE VICINITY OF THE FORMER HEADQUARTERS OF THE POINT REYES BIRD OBSERVATORY.
Ecological: TRAIL THROUGH MIXED EVERGREEN HARDWOOD FOREST. ON SHADED VERTICAL ROCK FACE.
General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2002 COLLECTION BY ROBERTSON.
Owner/Manager: UNKNOWN

<i>Cirsium hydrophilum var. vaseyi</i>		Element Code: PDAST2E1G2	
Mt. Tamalpais thistle			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G2T2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: BROADLEAFED UPLAND FOREST, CHAPARRAL, MEADOWS AND SEEPS.		
	Micro: SERPENTINE SEEPS AND STREAMS IN CHAPARRAL AND WOODLAND. 180-610 M.		



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Occurrence No.	6	Map Index: 08317	EO Index: 2248	Element Last Seen: 1994-08-17
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen: 1994-08-17
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2016-07-12

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.95904 / -122.63006	Accuracy:	80 meters
UTM:	Zone-10 N4201335 E532498	Elevation (ft):	800
PLSS:	T01N, R07W, Sec. 04, NE (M)	Acres:	0.0

Location: LIBERTY SPRINGS ALONG FAIRFAX-BOLINAS ROAD, 1.2 MILES SOUTHEAST OF PINE MOUNTAIN SUMMIT, EAST OF BOLINAS RIDGE.

Detailed Location: ON WEST SIDE OF ROAD, ADJACENT TO SPRINGS AT ROADSIDE. ABOUT 100 FEET SOUTH OF CONCRETE WATER TROUGH.

Ecological: IN PERENNIAL SERPENTINE SEEPS SURROUNDED BY SERPENTINE CHAPARRAL. ASSOCIATED WITH ZIGADENUS MACRANTHUS VAR. FONTANUS, RHODODENDRON OCCIDENTALE, UMBELLULARIA CALIFORNICA, STACHYS PYCNANTHA, AQUILEGIA EXIMIA, CIRSIUM VULGARE, ETC.

General: SEEN DURING 1988-1990 SURVEYS. 22 PLANTS SEEN IN 1993, 36 PLANTS IN 1994. THE RARE ZIGADENUS MICRANTHUS VAR. FONTANUS AND LESSINGIA MICRADENIA VAR. MICRADENIA ALSO OCCUR HERE.

Owner/Manager: MARIN MWD

Occurrence No.	7	Map Index: 31755	EO Index: 2249	Element Last Seen: 2008-01-19
Occ. Rank:	Excellent		Presence: Presumed Extant	Site Last Seen: 2008-01-19
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2016-07-12

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96369 / -122.62754	Accuracy:	specific area
UTM:	Zone-10 N4201852 E532717	Elevation (ft):	880
PLSS:	T02N, R07W, Sec. 33, SE (M)	Acres:	3.4

Location: BOLINAS-FAIRFAX ROAD EAST OF LIBERTY GULCH, ABOUT 1 MILE WSW OF CAMP LILLENTHAL, WEST OF SAN RAFAEL.

Detailed Location: 2 COLONIES: W COLONY IN SERPENTINE SEEP CROSSING OLD LIBERTY GULCH ROAD, WEST OF BOLINAS-FAIRFAX ROAD. E COLONY JUST EAST OF BOLINAS-FAIRFAX ROAD, ABOVE PARKING AREA FOR AZALEA HILL, ABOUT 30 FEET NORTH (UPHILL) OF FIRE ROAD.

Ecological: SERPENTINE SEEP ON SW-FACING SLOPE. WITH STACHYS PYCNANTHA, JUNCUS SPP., MIMULUS GUTTATUS, MYRICA CALIFORNICA, THERMOPSIS MACROPHYLLA, BACCHARIS PILULARIS VAR. CONSANGUINEA, PLANTAGO HOOKERIANA VAR. CALIFORNICA, FESTUCA CALIFORNICA, ETC.

General: 262 PLANTS SEEN AT WESTERN COLONY IN 1992. 8 PLANTS SEEN AT EASTERN COLONY IN 1994. A 2008 KELCH COLLECTION FROM "MT TAMALPAIS, N SIDE NEAR CARSON RIDGE, 900 FT ELEVATION" IS ALSO ATTRIBUTED TO THIS SITE.

Owner/Manager: MARIN MWD



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Occurrence No.	8	Map Index: 42363	EO Index: 42363	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2000-02-08

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.98015 / -122.65043	Accuracy:	specific area
UTM:	Zone-10 N4203670 E530699	Elevation (ft):	880
PLSS:	T02N, R07W, Sec. 29 (M)	Acres:	2.7

Location: NORTH OF PINE MOUNTAIN SUMMIT, ABOUT 1.7 MILES SOUTHEAST OF GREEN HILL, EAST OF BOLINAS RIDGE, WEST OF FAIRFAX.

Detailed Location: 2 COLONIES, ON WEST FACING SLOPE JUST NNE OF PINE MOUNTAIN SUMMIT.

Ecological: SERPENTINE SEEP.

General: UNKNOWN NUMBER OF PLANTS OBSERVED BY PATTERSON DURING 1989-1990 SURVEYS.

Owner/Manager: MARIN MWD

Occurrence No.	9	Map Index: 42364	EO Index: 42364	Element Last Seen:	1990-XX-XX
Occ. Rank:	Excellent		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2016-07-12

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.97404 / -122.64604	Accuracy:	specific area
UTM:	Zone-10 N4202994 E531087	Elevation (ft):	1300
PLSS:	T02N, R07W, Sec. 32, NE (M)	Acres:	2.2

Location: SOUTHERN FLANK OF PINE MOUNTAIN, ABOUT 2.3 MILES SOUTHEAST OF GREEN HILL, EAST OF BOLINAS RIDGE, WEST OF FAIRFAX.

Detailed Location: 2 COLONIES MAPPED, MAY OCCUR IN OTHER SERPENTINE SEEPS IN THIS VICINITY.

Ecological: SERPENTINE SEEPS SURROUNDED BY SERPENTINE CHAPARRAL. WITH ZIGADENUS FONTANUS, LILIUM PARDALINUM, EPIPACTIS GIGANTEA, PARNASSIA CALIFORNICA, RHODODENDRON OCCIDENTALE, DESCHAMPSIA CESPITOSA, CAREX SPP., RHAMNUS CALIFORNICA, ETC.

General: "LOCALLY COMMON" IN 1985. 100-200 PLANTS OBSERVED IN 1986. UNKNOWN NUMBER OF PLANTS OBSERVED BY PATTERSON DURING 1988-1990 SURVEYS. THE RARE ZIGADENUS MICRANTHUS VAR. FONTANUS ALSO OCCURS AT THIS SITE.

Owner/Manager: MARIN MWD



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Occurrence No.	14	Map Index: A1087	EO Index: 102655	Element Last Seen:	1914-09-27
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1914-09-27
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2016-07-12

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.91123 / -122.63616	Accuracy:	non-specific area
UTM:	Zone-10 N4196028 E531983	Elevation (ft):	
PLSS:	T01N, R07W, Sec. 21 (M)	Acres:	117.0

Location: WILLOW CAMP ROAD, MT TAMALPAIS.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB ALONG WILLOW CAMP FIRE ROAD.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1914 WALKER COLLECTION. NEEDS FIELDWORK.

Owner/Manager: DPR-MOUNT TAMALPAIS SP?

Occurrence No.	15	Map Index: A1089	EO Index: 102657	Element Last Seen:	2014-05-29
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2014-05-29
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2016-07-12

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.99185 / -122.66014	Accuracy:	specific area
UTM:	Zone-10 N4204966 E529842	Elevation (ft):	725
PLSS:	T02N, R07W, Sec. 20, SW (M)	Acres:	1.0

Location: PINE MOUNTAIN ROAD AT CROSSING OF BIG CARSON CREEK, ABOUT 1 AIR MILE NNW OF PINE MOUNTAIN.

Detailed Location: ON UPSLOPE SIDE OF ROAD. MAPPED IN THE SW 1/4 OF THE SW 1/4 OF SECTION 20.

Ecological: IN SERPENTINE GRAVEL IMMEDIATELY ADJACENT TO BIG CARSON CREEK.

General: 16 INDIVIDUALS OBSERVED IN 2001. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2014.

Owner/Manager: MARIN MWD



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<i>Hemizonia congesta ssp. congesta</i>		Element Code: PDAST4R0W1	
congested-headed hayfield tarplant			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G5T2
	State: None		State: S2
Habitat:	Other: Rare Plant Rank - 1B.2, SB_UCBG-UC Botanical Garden at Berkeley		
	General: VALLEY AND FOOTHILL GRASSLAND.		
	Micro: GRASSY VALLEYS AND HILLS, OFTEN IN FALLOW FIELDS; SOMETIMES ALONG ROADSIDES. 5-520 M.		

Occurrence No.	4	Map Index:	72927	EO Index:	73838	Element Last Seen:	1994-07-15
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:	1994-07-15		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2018-01-18		
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.90341 / -122.71646		Accuracy:	specific area			
UTM:	Zone-10 N4195136 E524926		Elevation (ft):	100			
PLSS:	T01N, R08W, Sec. 22, SE (M)		Acres:	5.0			
Location:	0.5 AIR MILE EAST OF BOLINAS POINT, POINT REYES NATIONAL SEASHORE.						
Detailed Location:	ON NW SLOPE OF RAVINE, NEAR EUCALYPTUS TREES.						
Ecological:	GRASSY SLOPE WITH THIN CLAYISH SOILS. ASSOC W/ PLANTAGO LANCEOLATA, HYPOCHAERIS RADICATA, LOTUS CORNICULATUS, LYTHRUM HYSSOPIFOLIA, NAVARRETIA SQUARROSA, GERANIUM DIVARICATUM, SANGUISORBA MINOR MURICATA, HOLCUS LANATUS, JUNCUS, GRINDELIA.						
General:	241 PLANTS OBSERVED IN 1992. 27 PLANTS SEEN IN 1994. 1945 HOWELL COLLECTION FROM "BOLINAS" ATTRIBUTED TO THIS SITE.						
Owner/Manager:	NPS-POINT REYES NS						

Occurrence No.	48	Map Index:	A8117	EO Index:	109900	Element Last Seen:	1967-05-27
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1967-05-27		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2018-01-24		
Quad Summary:	San Rafael (3712285), Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.98018 / -122.64325		Accuracy:	1 mile			
UTM:	Zone-10 N4203676 E531330		Elevation (ft):	1400			
PLSS:	T02N, R07W, Sec. 28 (M)		Acres:	1987.0			
Location:	NORTH OF ALPINE LAKE ON CARSON RIDGE, 3.5 MILES WEST OF FAIRFAX.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND MOST OF CARSON RIDGE ABOUT 3 MILES WEST OF FAIRFAX.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1967 ARNAUD COLLECTION. NEEDS FIELDWORK.						
Owner/Manager:	MARIN MWD						

<i>Lessingia micradenia var. micradenia</i>		Element Code: PDAST5S063	
Tamalpais lessingia			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G2T2
	State: None		State: S2
Habitat:	Other: Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture		
	General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.		



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Micro: USUALLY ON SERPENTINE, IN SERPENTINE GRASSLAND OR SERPENTINE CHAPARRAL. OFTEN ON ROADSIDES. 60-305 M.

Occurrence No.	1	Map Index:	26549	EO Index:	1667	Element Last Seen:	2015-05-20
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2015-05-20	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2015-07-20	

Quad Summary: San Rafael (3712285), Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.96198 / -122.62269	Accuracy:	specific area
UTM:	Zone-10 N4201664 E533143	Elevation (ft):	1000
PLSS:	T02N, R07W, Sec. 34, N (M)	Acres:	109.0

Location: NEAR ALPINE LAKE AND ALONG THE FAIRFAX-BOLINAS ROAD.
Detailed Location: MAPPED AS 6 POLYGONS BY CNDDDB BASED PRIMARILY ON 1994 FOLLETTE FIELD SURVEYS. COLLECTIONS AND OBSERVATIONS FROM ALPINE LAKE, CARSON RIDGE, AZALEA HILL, AND LIBERTY ATTRIBUTED HERE.
Ecological: SERPENTINE GRASSLAND AND OPENINGS IN SERPENTINE CHAPARRAL. ASSOCIATED WITH AVENA BARBATA, AIRA CARYOPHYLLA, MELICA, CEANOTHUS JEPSONII, QUERCUS DURATA, ADENOSTOMA, ERIODICTYON, PERIDERIDIA KELLOGGII, HEMIZONIA CONGESTA CONGESTA, ET AL.
General: POPULATION NUMBERS ARE FOR PORTIONS OF SITE: "THOUSANDS" SEEN IN 1994, FEWER THAN 100 IN 1996, "ABUNDANT" IN 2002, 1001-10,000 IN 2013, 1001-10,000 IN 2014, 11-50 IN 2015.
Owner/Manager: MARIN MWD

Occurrence No.	7	Map Index:	42044	EO Index:	97892	Element Last Seen:	1998-03-10
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1998-03-10	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2015-07-13	

Quad Summary: San Rafael (3712285), Bolinas (3712286), Novato (3812215), San Geronimo (3812216)
County Summary: Marin

Lat/Long:	37.99880 / -122.62778	Accuracy:	non-specific area
UTM:	Zone-10 N4205747 E532679	Elevation (ft):	
PLSS:	T02N, R07W, Sec. 21 (M)	Acres:	388.0

Location: WHITE'S HILL OPEN SPACE PRESERVE.
Detailed Location: "SOUTHERN SECTION." MAPPED BY CNDDDB NON-SPECIFICALLY AROUND BOUNDARY OF WHITE'S HILL OPEN SPACE; EXACT LOCATION WITHIN PRESERVE IS UNKNOWN.
Ecological:
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1998 PLANT CHECKLIST FOR WHITE'S HILL COUNTY OPEN SPACE COMPILED BY MARIN CNPS. NEEDS FIELDWORK.
Owner/Manager: MRN COUNTY



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Occurrence No.	10	Map Index: 96741	EO Index: 97919	Element Last Seen: 199X-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 199X-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2015-07-14

Quad Summary: Bolinas (3712286), San Geronimo (3812216)

County Summary: Marin

Lat/Long:	38.00489 / -122.67463	Accuracy:	3/5 mile
UTM:	Zone-10 N4206408 E528564	Elevation (ft):	
PLSS:	T02N, R07W, Sec. 18 (M)	Acres:	0.0

Location: MIDDLE SECTION SAN GERONIMO RIDGE, GARY GIACOMINI OPEN SPACE PRESERVE.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND MIDDLE SECTION OF THE PRESERVE BETWEEN TAMARACK AND SYLVESTRIS EAST ACCESS POINTS, BASED ON A 1999 PLANT CHECKLIST BY MARIN CNPS.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A PLANT CHECKLIST BASED ON OBSERVATIONS FROM 4/7/1998 AND 4/6/1999. NEEDS FIELDWORK.

Owner/Manager: MRN COUNTY

<i>Microseris paludosa</i>		Element Code: PDAST6E0D0
marsh microseris		
Listing Status:	Federal: None	CNDDB Element Ranks: Global: G2
	State: None	State: S2
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden, SB_UCSC-UC Santa Cruz	
Habitat:	General: CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.	
	Micro: 3-610 M.	

Occurrence No.	38	Map Index: 08236	EO Index: 96237	Element Last Seen: 1937-06-13
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1937-06-13
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2015-02-03

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.91214 / -122.70248	Accuracy:	1 mile
UTM:	Zone-10 N4196108 E526152	Elevation (ft):	
PLSS:	T01N, R08W, Sec. 23 (M)	Acres:	0.0

Location: BOLINAS.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS IN VICINITY OF BOLINAS.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1937 HOWELL COLLECTION. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



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Amsinckia lunaris		Element Code: PDBOR01070	
bent-flowered fiddleneck			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3
	State: None		State: S3
Habitat:	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley, SB_UCSC-UC Santa Cruz		
	General: CISMONTANE WOODLAND, VALLEY AND FOOTHILL GRASSLAND, COASTAL BLUFF SCRUB.		
	Micro: 3-795 M.		

Occurrence No.	78	Map Index: A7946	EO Index: 109734	Element Last Seen:	2013-03-14
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2013-03-14
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2018-01-04

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.91934 / -122.62997	Accuracy:	80 meters
UTM:	Zone-10 N4196930 E532523	Elevation (ft):	1967
PLSS:	T01N, R07W, Sec. 16, SE (M)	Acres:	5.0

Location: NORTH END OF BOLINAS RIDGE, ABOUT 1.8 AIR MILES WSW OF WEST PEAK OF MOUNT TAMALPAIS.
Detailed Location: MAPPED IN THE NORTH 1/2 OF THE SE 1/4 OF SECTION 16.
Ecological: GRASSLAND / OPEN FIELD.
General: FEWER THAN 50 PLANTS OBSERVED IN 2013.
Owner/Manager: DPR-MOUNT TAMALPAIS SP

Occurrence No.	90	Map Index: B2625	EO Index: 114558	Element Last Seen:	2018-05-14
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2018-05-14
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-03-18

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.97816 / -122.64984	Accuracy:	80 meters
UTM:	Zone-10 N4203450 E530752	Elevation (ft):	1565
PLSS:	T02N, R07W, Sec. 32, NE (M)	Acres:	5.0

Location: PINE MOUNTAIN RIDGE, 0.15 AIR MILE NE OF SUMMIT OF PINE MTN, EAST OF KENT LAKE.
Detailed Location: MAPPED BY CNDDDB FROM 2018 GREENBERGER COORDINATES IN THE NW 1/4 NE 1/4 PROJECTED SECTION 32.
Ecological:
General: UNKNOWN NUMBER OF PLANTS OBSERVED IN 2018.
Owner/Manager: MARIN MWD



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<i>Cardamine angulata</i>		Element Code: PDBRA0K010	
seaside bittercress			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G4G5
	State: None		State: S3
	Other: Rare Plant Rank - 2B.2		
Habitat:	General: NORTH COAST CONIFEROUS FOREST, LOWER MONTANE CONIFEROUS FOREST.		
	Micro: WET AREAS, STREAMBANKS. 5-515 M.		

Occurrence No.	1	Map Index: 08246	EO Index: 86718	Element Last Seen:	1915-03-28
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1915-03-28
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2012-04-11
Quad Summary:	Bolinás (3712286), San Geronimo (3812216)				
County Summary:	Marin				
Lat/Long:	38.01047 / -122.70166		Accuracy:	1 mile	
UTM:	Zone-10 N4207019 E526189		Elevation (ft):		
PLSS:	T02N, R08W, Sec. 14 (M)		Acres:	0.0	
Location:	LAGUNITAS.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AROUND THE TOWN OF LAGUNITAS ACCORDING TO A 1915 EASTWOOD COLLECTION.				
Ecological:					
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1915 EASTWOOD COLLECTION. FIELDWORK NEEDED.				
Owner/Manager:	UNKNOWN				



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<i>Streptanthus batrachopus</i>		Element Code: PDBRA2G050	
Tamalpais jewelflower			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.3, SB_UCSC-UC Santa Cruz		
Habitat:	General: CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL.		
	Micro: TALUS SERPENTINE OUTCROPS. 335-670 M.		

Occurrence No.	4	Map Index: 08321	EO Index: 77	Element Last Seen:	2012-05-28
Occ. Rank:	Excellent		Presence: Presumed Extant	Site Last Seen:	2012-05-28
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-08-12

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.98290 / -122.64714	Accuracy:	specific area
UTM:	Zone-10 N4203977 E530987	Elevation (ft):	1480
PLSS:	T02N, R07W, Sec. 29, E (M)	Acres:	37.0

Location: CARSON RIDGE, BETWEEN PINE MOUNTAIN & SAN GERONIMO RIDGE.
Detailed Location: MAPPED AS 3 POLYGONS BASED ON 1990 PATTERSON MAP: 0.65 MILE NORTH OF PINE MTN; AT JUNCTION OF PINE MTN RD/REPACK RD; & 0.35-0.55 MILE SOUTH OF JUNCTION.
Ecological: ON SERPENTINE WITH ARCTOSTAPHYLOS HOOKERI MONTANA, CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, EPILOBIUM MINUTUM, AND PICKERINGIA MONTANA. IN 1946 PLANTS WERE FOUND IN DISTURBED SOIL ON BURN.
General: UNKNOWN NUMBER SEEN IN ALL POLYS IN 1990; 2000-3000 PLANTS SEEN IN MIDDLE POLY IN 1993. MANY PLANTS SEEN ALONG BOTH SIDES OF PINE MTN RD IN 1996. OBSERVATIONS FROM CARSON RIDGE IN 1937, 1938, '42, '43, '46, '48, '00, '07 & '12 ATTRIB HERE.
Owner/Manager: MARIN MWD

Occurrence No.	5	Map Index: 08301	EO Index: 16591	Element Last Seen:	1990-09-XX
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	1990-09-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-08-12

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.99889 / -122.65997	Accuracy:	specific area
UTM:	Zone-10 N4205746 E529854	Elevation (ft):	1360
PLSS:	T02N, R07W, Sec. 20, W (M)	Acres:	26.0

Location: NW SLOPE SAN GERONIMO RIDGE, ABOUT 1.5 MI ABOVE (S OF) SAN GERONIMO AND 0.5-0.7 MI EAST OF GREEN HILL.
Detailed Location: MAPPED BY CNDDB BASED ON 1990 PATTERSON MAPS AND REPORT.
Ecological: IN CUPRESSUS SARGENTII ASSOCIATION ON SERPENTINE.
General: UNKNOWN NUMBER SEEN IN 1990. 1938 MORRISON COLLECTION FROM "OUTCROP ALONG TRAIL TO SAN GERONIMO RIDGE ABOUT 200 YDS FROM SPRING THAT MARKS NORTH END OF CARSON RIDGE" ATTRIBUTED HERE. ALSO SEEN ON SAN GERONIMO RIDGE IN 1947 & 1948.
Owner/Manager: MARIN MWD

<i>Streptanthus glandulosus ssp. pulchellus</i>		Element Code: PDBRA2G0J2	
Mt. Tamalpais bristly jewelflower			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G4T2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		



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Habitat:	General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.
	Micro: SERPENTINE SLOPES. 125-670 M.

Occurrence No.	6	Map Index: 08353	EO Index: 20364	Element Last Seen: 1997-05-31
Occ. Rank:	Good	Presence: Presumed Extant	Site Last Seen: 1997-05-31	
Occ. Type:	Natural/Native occurrence	Trend: Unknown	Record Last Updated: 2010-10-07	

Quad Summary:	San Rafael (3712285), Bolinas (3712286)
County Summary:	Marin

Lat/Long:	37.96910 / -122.62696	Accuracy:	specific area
UTM:	Zone-10 N4202452 E532765	Elevation (ft):	900
PLSS:	T02N, R07W, Sec. 33, E (M)	Acres:	25.0

Location: RIDGE BETWEEN MEADOW COUNTRY CLUB AND LIBERTY GULCH, NEAR BOLINAS ROAD, NORTH OF ALPINE LAKE, NEAR FAIRFAX.

Detailed Location: MAPPED BY CNDDDB AS 5 POLYGONS. ALONG BOTH SIDES OF BOLINAS ROAD AND BOTH SIDES OF PINE MOUNTAIN TRUCK ROAD.

Ecological: SERPENTINE OUTCROPS WITHIN CHAPARRAL. ASSOCIATED WITH CEANOTHUS JEPSONII, GILIA CAPITATA, MINUARTIA CALIFORNICA, ASPIDOTIS, ARCTOSTAPHYLOS HOOKERI MONTANA, ADENOSTOMA, CALYCADENIA MULTIGLANDULOSA, ERIODICTYON, LESSINGIA, CALOCHORTUS LUTEUS.

General: 244 PLANTS OBSERVED IN LARGE SOUTHWESTERN POLYGON IN 1994. APPROXIMATELY 15 PLANTS OBSERVED IN SMALL CENTER WEST POLYGON IN 1997. INCLUDES FORMER OCCURRENCE #16.

Owner/Manager: MARIN MWD

Occurrence No.	7	Map Index: 08326	EO Index: 20362	Element Last Seen: 19XX-XX-XX
Occ. Rank:	Unknown	Presence: Presumed Extant	Site Last Seen: 19XX-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend: Unknown	Record Last Updated: 2010-10-05	

Quad Summary:	Bolinas (3712286)
County Summary:	Marin

Lat/Long:	37.94245 / -122.63827	Accuracy:	specific area
UTM:	Zone-10 N4199492 E531783	Elevation (ft):	800
PLSS:	T01N, R07W, Sec. 09, NW (M)	Acres:	6.0

Location: 0.2 MILE NORTH OF ALPINE DAM, ABOUT 4 AIR MILES NE OF THE TOWN OF BOLINAS.

Detailed Location: TWO COLONIES. ONE COLONY IS 0.2 MILE NNW OF THE CENTER OF THE DAM, THE OTHER IS 0.2 MILE NE OF THE DAM.

Ecological:

General: MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A REPORT AND MAP BY PATTERSON, BASED ON FIELD WORK PERFORMED FROM 1988 TO 1990. POPULATION SIZE WAS NOT PROVIDED.

Owner/Manager: MARIN MWD



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Occurrence No.	8	Map Index: 08294	EO Index: 20361	Element Last Seen:	2005-04-26
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2005-04-26
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2010-10-06

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.97455 / -122.64376	Accuracy:	specific area
UTM:	Zone-10 N4203051 E531287	Elevation (ft):	1300
PLSS:	T02N, R07W, Sec. 32, NE (M)	Acres:	22.0

Location: SLOPES SURROUNDING THE HEAD OF LITTLE CARSON CREEK, JUST EAST AND SE OF PINE MOUNTAIN, WEST OF FAIRFAX.
Detailed Location: MAPPED BY CNDDDB AS 5 POLYGONS ON THE WEST SIDE OF PINE MOUNTAIN TRUCK ROAD.
Ecological: SERPENTINE GRASSLAND WITH AVENA BARBATA, CALYSTEGIA, PLANTAGO ERECTA, CALYCADENIA MULTIGLANDULOSA, CHORIZANTHE, AND PHACELIA CILIATA.
General: MAIN SOURCE OF INFORMATION IS A MAP BY PATTERSON FROM FIELD WORK DONE 1988-1990, BUT SIZES OF OBSERVED POPULATIONS WERE NOT PROVIDED. S.G. PULCHELLUS ACCOUNTED FOR LESS THAN 1% OF A 100 SQUARE METER PLOT WITHIN THE FAR N POLYGON IN 2005.
Owner/Manager: MARIN MWD

Occurrence No.	16	Map Index: 36466	EO Index: 31463	Element Last Seen:	1997-05-31
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	1997-05-31
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1997-08-20

Quad Summary: San Rafael (3712285), Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.96773 / -122.62697	Accuracy:	80 meters
UTM:	Zone-10 N4202300 E532765	Elevation (ft):	1120
PLSS:	T02N, R07W, Sec. 33 (M)	Acres:	0.0

Location: NE OF LIBERTY GULCH, ON E SIDE OF PINE MTN TRUCK TRAIL, W SIDE OF BOLINAS-FAIRFAX RD.
Detailed Location:
Ecological: SERPENTINE BARRENS WITH ERIODICTYON CALIFORNICUM, LESSINGIA MICRADENIA, CALOCHORTUS LUTEUS, AND ARCTOSTAPHYLOS HOOKERI.
General: 47 PLANTS IN 1997.
Owner/Manager: MARIN MWD



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Occurrence No.	21	Map Index: 80316	EO Index: 81305	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	19XX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2010-10-07
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.99647 / -122.66863		Accuracy:	specific area	
UTM:	Zone-10 N4205476 E529094		Elevation (ft):	1100	
PLSS:	T02N, R07W, Sec. 19, E (M)		Acres:	8.0	
Location:	1.9 AIR MILES EAST OF PETERS DAM ON KENT LAKE, ON THE EAST SLOPE OF GREEN HILL, NORTH OF BIG CARSON CREEK.				
Detailed Location:	TWO COLONIES. JUST SOUTH OF MOUNTAIN TRUCK ROAD.				
Ecological:					
General:	PLANTS OBSERVED HERE BY PATTERSON SOMETIME BETWEEN 1988 AND 1990. POPULATION SIZES NOT PROVIDED.				
Owner/Manager:	MARIN MWD				
Occurrence No.	22	Map Index: 80317	EO Index: 81306	Element Last Seen:	2005-06-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2005-06-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2010-10-07
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.98896 / -122.63143		Accuracy:	80 meters	
UTM:	Zone-10 N4204655 E532363		Elevation (ft):	750	
PLSS:	T02N, R07W, Sec. 28, NE (M)		Acres:	0.0	
Location:	0.5 AIR MILE SW OF THE SUMMIT OF WHITE HILL, ON NORTH SIDE OF TRIBUTARY OF CASCADE CREEK, ABOUT 2 MILES WEST OF FAIRFAX.				
Detailed Location:	SLIGHTLY NORTH OF INKWELL TRAIL.				
Ecological:	MIXED ADENOSTOMA FASCICULATUM CHAPARRAL WITH CERCOCARPUS BETULOIDES, MIMULUS AURANTIACUS, DUDLEYA COMOSA, ERIOGONUM LUTEOLUM, AND CENTARUEA SOLSTITIALIS.				
General:	POPULATION SIZE NOT PROVIDED, BUT S.G. PULCHELLUS ACCOUNTED FOR LESS THAN 1% COVER WITHIN A 400 SQUARE METER STUDY PLOT IN 2005.				
Owner/Manager:	MARIN MWD				
Occurrence No.	23	Map Index: 80318	EO Index: 81308	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	19XX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2010-10-07
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.98648 / -122.65398		Accuracy:	specific area	
UTM:	Zone-10 N4204371 E530384		Elevation (ft):	1300	
PLSS:	T02N, R07W, Sec. 29, N (M)		Acres:	11.0	
Location:	0.7 AIR MILE NORTH OF THE SUMMIT OF PINE MOUNTAIN, WEST OF PINE MOUNTAIN TRUCK ROAD, EAST OF KENT LAKE.				
Detailed Location:					
Ecological:					
General:	PLANTS OBSERVED HERE BY PATTERSON SOMETIME BETWEEN 1988 AND 1990. POPULATION SIZE NOT PROVIDED.				
Owner/Manager:	MARIN MWD				



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Occurrence No.	24	Map Index: 80320	EO Index: 81309	Element Last Seen: 19XX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 19XX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2010-10-07

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.97188 / -122.67471	Accuracy:	specific area
UTM:	Zone-10 N4202746 E528570	Elevation (ft):	500
PLSS:	T02N, R07W, Sec. 31, NW (M)	Acres:	3.0

Location: 1.3 AIR MILES WSW OF THE SUMMIT OF PINE MOUNTAIN, ON THE NE SHORE OF THE SOUTHERN ARM OF KENT LAKE.

Detailed Location:

Ecological:

General: PLANTS OBSERVED HERE BY PATTERSON SOMETIME BETWEEN 1988 AND 1990. POPULATION SIZE NOT PROVIDED.

Owner/Manager: MARIN MWD

Occurrence No.	25	Map Index: 80321	EO Index: 81310	Element Last Seen: 19XX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 19XX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2010-10-07

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.95988 / -122.64420	Accuracy:	specific area
UTM:	Zone-10 N4201423 E531254	Elevation (ft):	1300
PLSS:	T01N, R07W, Sec. 05, NE (M)	Acres:	4.0

Location: PINE MOUNTAIN TRUCK ROAD, ON RIDGELINE BETWEEN KENT LAKE AND ALPINE LAKE, AT THE HEAD OF LILY GULCH.

Detailed Location: ON THE EAST SIDE OF THE ROAD.

Ecological:

General: PLANTS OBSERVED HERE BY PATTERSON SOMETIME BETWEEN 1988 AND 1990. POPULATION SIZE NOT PROVIDED.

Owner/Manager: MARIN MWD

Occurrence No.	26	Map Index: 80322	EO Index: 81311	Element Last Seen: 19XX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 19XX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2010-10-07

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.95583 / -122.63209	Accuracy:	specific area
UTM:	Zone-10 N4200978 E532320	Elevation (ft):	500
PLSS:	T01N, R07W, Sec. 04, NE (M)	Acres:	7.0

Location: ALONG BOLINAS ROAD, BETWEEN LIBERTY GULCH AND LILY GULCH, ON THE EAST SIDE OF ALPINE LAKE.

Detailed Location: ON BOTH SIDES OF THE ROAD. MAPPED AS THREE POLYGONS.

Ecological:

General: PLANTS OBSERVED HERE BY PATTERSON SOMETIME BETWEEN 1988 AND 1990. POPULATION SIZES NOT PROVIDED.

Owner/Manager: MARIN MWD



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Occurrence No.	27	Map Index: 80323	EO Index: 81312	Element Last Seen: 19XX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 19XX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2010-10-07

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94114 / -122.64781	Accuracy:	specific area
UTM:	Zone-10 N4199343 E530945	Elevation (ft):	700
PLSS:	T01N, R07W, Sec. 08, NE (M)	Acres:	4.0

Location: 0.5 AIR MILE WEST OF ALPINE DAM, BETWEEN BOLINAS ROAD AND LAGUNITAS CREEK.

Detailed Location:

Ecological:

General: PLANTS OBSERVED HERE BY PATTERSON SOMETIME BETWEEN 1988 AND 1990. POPULATION SIZE NOT PROVIDED.

Owner/Manager: MARIN MWD

Arctostaphylos montana ssp. montana

Element Code: PDERI040J5

Mt. Tamalpais manzanita

Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G3T3
	State: None		State: S3

Other: Rare Plant Rank - 1B.3, SB_UCBG-UC Botanical Garden at Berkeley

Habitat: **General:** CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.

Micro: SERPENTINE SLOPES IN CHAPARRAL AND GRASSLAND. 150-680 M.

Occurrence No.	1	Map Index: 08374	EO Index: 20220	Element Last Seen: 2013-04-14
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen: 2013-04-14
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2014-12-23

Quad Summary: San Rafael (3712285), Bolinas (3712286), San Geronimo (3812216)

County Summary: Marin

Lat/Long:	37.96195 / -122.62240	Accuracy:	specific area
UTM:	Zone-10 N4201660 E533169	Elevation (ft):	
PLSS:	T02N, R07W, Sec. 34 (M)	Acres:	2017.0

Location: FROM VICINITY OF MT TAMALPAIS EXTENDING NORTH TO SAN GERONIMO RIDGE.

Detailed Location: EXTENSIVE OCCURRENCE COMPRISED OF MANY POLYGONS. MAIN SOURCE OF INFO FOR THIS SITE IS A 1990 PATTERSON MAP. ALSO MAPPED TO INCLUDE NON-SPECIFIC HISTORIC LOCATION DESCRIPTIONS, 2002 GGNRA DIGITAL DATA, 1983 & 2008 MAPS, AND 2012 COORDINATES.

Ecological: TYPICALLY ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.

General: 10,000-100,000+ PLANTS ESTIMATED IN 1990. MAJORITY OF KNOWN INDIVIDUALS ARE WITHIN THIS SITE. POP NUMBERS FOR PORTIONS OF SITE: 1128 IN 2000, 1220 IN 2001, 79 IN 2002, 25-50 IN '08, OBSERVED IN '09, '12, '13. INCLUDES FORMER OCC #2-4, 6-11.

Owner/Manager: MARIN MWD, DPR, MRN CO, OTHERS



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Occurrence No.	19	Map Index: 42039	EO Index: 42039	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1999-12-20
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.94866 / -122.64025		Accuracy:	80 meters	
UTM:	Zone-10 N4200180 E531607		Elevation (ft):	1200	
PLSS:	T01N, R07W, Sec. 04 (M)		Acres:	0.0	
Location:	OAT HILL, WEST OF ALPINE LAKE AND NORTHWEST OF MOUNT TAMALPAIS.				
Detailed Location:	MAPPED ALONG THE WEST SIDE OF OAT HILL.				
Ecological:	PLANTS IN THIS STUDY WERE TYPICALLY FOUND ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.				
General:	MAIN SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL FROM "SENSITIVE PLANT SURVEY FOR THE MARIN MWD" BY C. PATTERSON (1990).				
Owner/Manager:	MARIN MWD				
Occurrence No.	20	Map Index: 42040	EO Index: 42040	Element Last Seen:	2014-03-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2014-03-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-11-19
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.99347 / -122.63707		Accuracy:	specific area	
UTM:	Zone-10 N4205153 E531866		Elevation (ft):	1100	
PLSS:	T02N, R07W, Sec. 21, SW (M)		Acres:	14.0	
Location:	ABOUT 0.5 TO 0.8 MILE WEST OF WHITE HILL, NORTHEAST OF PINE MOUNTAIN AND NORTH OF MOUNT TAMALPAIS.				
Detailed Location:	MAPPED BY CNDDDB AS 2 POLYGONS BASED ON A 1990 PATTERSON MAP AND 2014 ALVAREZ COORDINATES.				
Ecological:	PLANTS IN THIS STUDY WERE TYPICALLY FOUND ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.				
General:	SOUTHERN POLYGON BASED ON MAP DETAIL FROM "SENSITIVE PLANT SURVEY FOR THE MARIN MWD" BY C. PATTERSON (1990). NORTHERN POLYGON BASED ON A 2014 ALVAREZ OBSERVATION.				
Owner/Manager:	MARIN MWD				



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Occurrence No.	21	Map Index: 42041	EO Index: 42041	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1999-12-20
Quad Summary:	Bolinias (3712286)				
County Summary:	Marin				
Lat/Long:	37.98633 / -122.63408		Accuracy:	specific area	
UTM:	Zone-10 N4204361 E532132		Elevation (ft):	1000	
PLSS:	T02N, R07W, Sec. 28 (M)		Acres:	6.0	
Location:	ABOUT 0.7 MILE SOUTHWEST OF WHITE HILL, NORTHEAST OF PINE MOUNTAIN AND NORTH OF MOUNT TAMALPAIS.				
Detailed Location:	MAPPED SOUTHWEST OF CASCADE CREEK ALONG DIRT ROAD.				
Ecological:	PLANTS IN THIS STUDY WERE TYPICALLY FOUND ON SERPENTINE SOILS WITH CEANOTHUS JEPSONII, CUPRESSUS SARGENTII, ADENOSTOMA, AND QUERCUS DURATA. OFTEN DOMINANT OR CO-DOMINANT ON SERPENTINE SOILS, LOW DENSITY ON NON-SERPENTINE SOILS.				
General:	MAIN SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL FROM "SENSITIVE PLANT SURVEY FOR THE MARIN MWD" BY C. PATTERSON (1990).				
Owner/Manager:	MARIN MWD				

Occurrence No.	24	Map Index: 42044	EO Index: 42044	Element Last Seen:	1998-03-10
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1998-03-10
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-11-19
Quad Summary:	San Rafael (3712285), Bolinas (3712286), Novato (3812215), San Geronimo (3812216)				
County Summary:	Marin				
Lat/Long:	37.99880 / -122.62778		Accuracy:	non-specific area	
UTM:	Zone-10 N4205747 E532679		Elevation (ft):		
PLSS:	T02N, R07W, Sec. 21 (M)		Acres:	388.0	
Location:	WHITES HILL OPEN SPACE.				
Detailed Location:	MAPPED BY CNDDDB AS BEST GUESS AROUND THE BOUNDARY OF WHITES HILL OPEN SPACE.				
Ecological:					
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1998 FOLLETTE OBSERVATION FROM WHITES HILL OPEN SPACE. NEEDS FIELDWORK.				
Owner/Manager:	MRN COUNTY OPEN SPACE				

Arctostaphylos virgata		Element Code: PDERI041K0	
Marin manzanita			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G2
	State: None		State: S2
Other:	Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture		
Habitat:	General:	BROADLEAFED UPLAND FOREST, CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL, NORTH COAST CONIFEROUS FOREST.	
	Micro:	ON SANDSTONE OR GRANITIC 1-800 M.	



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Occurrence No.	5	Map Index: 08207	EO Index: 14039	Element Last Seen:	2002-02-06
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2002-02-06
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-09-18
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.93729 / -122.72508		Accuracy:	non-specific area	
UTM:	Zone-10 N4198893 E524157		Elevation (ft):	700	
PLSS:	T01N, R08W, Sec. 10 (M)		Acres:	133.0	
Location:	VICINITY OF PABLO POINT AND RIDGE TO THE SOUTH, ABOUT 2.5 MILES NW OF BOLINAS, POINT REYES NATIONAL SEASHORE.				
Detailed Location:	MAPPED BY CNDDDB AS 5 POLYGONS. SW-MOST POLYGON IS NON-SPECIFIC BASED ON A 1983 FOWLER MAP; NO PLANTS SEEN HERE IN 2001. REMAINING POLYGONS ARE SPECIFIC BASED ON MAP DATA FROM 1996, 2001 AND 2002.				
Ecological:	DOUGLAS-FIR FOREST. ASSOCIATED WITH TOXICODENDRON DIVERSILOBUM, QUERCUS CHRYSOLEPIS, RHAMNUS CALIFORNICUS, MIMULUS AURANTIACUS, CEANOOTHUS THYRSIFLORUS, ERIODICTYON CALIFORNICUM, AND BACCHARIS PILULARIS.				
General:	300+ PLANTS IN 8 POPULATIONS SEEN IN 1983; 1 POP CONSISTS OF VERY LARGE "CARCASSES", THE OTHER POPULATIONS HAVE BOTH HEALTHY AND DECADENT INDIVIDUALS. PLANTS OBSERVED BUT NOT WELL COUNTED IN 1996/7 & 2002. INCLUDES FORMER EO #7 & #9.				
Owner/Manager:	NPS-POINT REYES NS				
Occurrence No.	6	Map Index: 08167	EO Index: 12694	Element Last Seen:	1983-04-04
Occ. Rank:	Poor		Presence: Presumed Extant	Site Last Seen:	2001-02-26
Occ. Type:	Natural/Native occurrence		Trend: Decreasing	Record Last Updated:	2014-09-18
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.96388 / -122.74561		Accuracy:	specific area	
UTM:	Zone-10 N4201838 E522345		Elevation (ft):	1200	
PLSS:	T02N, R08W, Sec. 33, S (M)		Acres:	11.0	
Location:	ABOUT 2 MILES NNW OF PABLO POINT, NW OF BOLINAS, POINT REYES NATIONAL SEASHORE.				
Detailed Location:	THREE COLONIES MAPPED ALONG TRAIL NEAR HEAD OF ARROYO HONDO.				
Ecological:	DOUGLAS-FIR FOREST. ASSOCIATED WITH VACCINIUM OVATUM, ARBUTUS MENZIESII, ERIODICTYON CALIFORNICUM, BACCHARIS PILULARIS, UMBELLULARIA CALIFORNICA, STACHYS RIGIDA, AND PTERIDIUM AQUILINUM.				
General:	3 SMALL POPULATIONS IN 1983 (5 LIVE PLANTS, 30 DEAD OR DECADENT). NO LIVING OR DEAD PLANTS OBSERVED AT THESE POPULATIONS IN 2001; POPULATION MAY HAVE DIED OUT AS A RESULT OF DOUGLAS-FIR FOREST GROWTH AND LACK OF FIRE.				
Owner/Manager:	NPS-POINT REYES NS				



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Occurrence No.	8	Map Index: 08334	EO Index: 20135	Element Last Seen: 1965-02-22
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1965-02-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 1999-10-13
Quad Summary:	Bolinas (3712286)			
County Summary:	Marin			
Lat/Long:	37.96356 / -122.63172		Accuracy: 1/5 mile	
UTM:	Zone-10 N4201835 E532349		Elevation (ft): 850	
PLSS:	T02N, R07W, Sec. 33 (M)		Acres: 0.0	
Location:	0.25 MILE NORTHWEST OF THE NORTHWEST ARM OF ALPINE LAKE NEAR FAIRFAX-BOLINAS ROAD, NORTHWEST OF MOUNT TAMALPAIS.			
Detailed Location:	MAPPED ALONG LIBERTY GULCH AT FAIRFAX-BOLINAS ROAD CROSSING.			
Ecological:	GROWING WITH PSEUDOTSUGA MENZIESII, QUERCUS, AND UMBELLULARIA CALIFORNICA, ARBUTUS MENZIESII, AND MIMULUS.			
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1965 COLLECTION BY HENNINGS.			
Owner/Manager:	UNKNOWN			
Occurrence No.	10	Map Index: 41729	EO Index: 41729	Element Last Seen: 1994-03-08
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1994-03-08
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2014-09-22
Quad Summary:	Bolinas (3712286)			
County Summary:	Marin			
Lat/Long:	37.99904 / -122.67393		Accuracy: specific area	
UTM:	Zone-10 N4205758 E528628		Elevation (ft): 1100	
PLSS:	T02N, R07W, Sec. 19, N (M)		Acres: 6.4	
Location:	GREEN HILL ALONG SAN GERONIMO RIDGE, NORTHEAST OF KENT LAKE AND NORTHWEST OF MOUNT TAMALPAIS.			
Detailed Location:	MAPPED ALONG PINE MOUNTAIN TRUCK ROAD, ABOUT 0.5 MILE NORTHEAST OF THE CARSON CREEK ARM OF KENT LAKE.			
Ecological:	HARD, DENSE CHAPARRAL WITH ARCTOSTAPHYLOS GLANDULOSA AND SCATTERED PSEUDOTSUGA MENZIESII, AND CEANOTHUS SP. ROCKY SERPENTINE RIDGETOP WITH A SW-EXPOSURE.			
General:	NW POLY: C. PATTERSON MAPPED POPULATION AT THIS SITE IN 1990; AREA SEARCHED IN 1994 BUT NO PLANTS OBSERVED. SE POLY: 1 PLANT NOTED BY FOLLETTE IN 1994. A 1937 EWAN COLLECTION FROM "SAN GERONIMO RIDGE, 1300 FT" IS ALSO ATTRIBUTED HERE.			
Owner/Manager:	MARIN MWD			



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Occurrence No.	16	Map Index: 37150	EO Index: 5178	Element Last Seen:	2009-03-08
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2009-03-08
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-09-22

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94794 / -122.66880	Accuracy:	specific area
UTM:	Zone-10 N4200091 E529098	Elevation (ft):	1500
PLSS:	T01N, R07W, Sec. 06 (M)	Acres:	70.0

Location: BOLINAS RIDGE; ALONG BOLINAS RIDGE TRAIL ABOUT 0.3-1.5 MILES NW OF BOLINAS-FAIRFAX ROAD, SOUTH OF KENT LAKE.

Detailed Location: MAPPED BY CNDDDB AS 5 POLYGONS ACCORDING TO 2002 GOLDEN GATE NATIONAL RECREATION AREA DIGITAL DATA.

Ecological: ON EDGE OF CHAPARRAL AND FOREST. ASSOCIATED WITH LITHOCARPUS DENSIFLORUS, SEQUOIA SEMPERVIRENS, ARBUTUS MENZIESII, PSEUDOTSUGA MENZIESII, CEANOTHUS THRYSIIFLORUS, VACCINIUM OVATUM, ERIODICTYON CALIFORNICUM, ARCTOSTAPHYLOS SPP, ET AL.

General: 6 PLANTS IN 1 COLONY IN 1985. PLANTS MAPPED BUT NOT COUNTED IN 1990. 33 PLANTS IN 3 COLONIES IN 1993. 12 PLANTS IN NEW COLONY IN 1995. UNKNOWN NUMBER OF PLANTS IN 2001 & 2002 IN FAIRLY VAST SET OF COLONIES. OBSERVED IN AREA IN 2009.

Owner/Manager: MARIN MWD, NPS-GGNRA

Occurrence No.	27	Map Index: 52211	EO Index: 52211	Element Last Seen:	2002-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2002-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-09-22

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96277 / -122.70029	Accuracy:	specific area
UTM:	Zone-10 N4201727 E526326	Elevation (ft):	1100
PLSS:	T02N, R08W, Sec. 35, SE (M)	Acres:	16.0

Location: BOLINAS RIDGE; ALONG MCCURDY TRAIL APPROXIMATELY 1 AIR MILE NORTHEAST FROM BENCHMARK 176, POINT REYES.

Detailed Location: MAPPED BY CNDDDB AS 4 POLYGONS ACCORDING TO DIGITAL DATA FROM GOLDEN GATE NATIONAL RECREATION AREA.

Ecological:

General: SITE OBSERVED IN 2000 AND 2002. PARKER ESTIMATES ABOUT 100-200 INDIVIDUALS IN THIS AREA (DATE OF SURVEYS UNKNOWN).

Owner/Manager: NPS-GGNRA



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Occurrence No.	32	Map Index:	93852	EO Index:	94974	Element Last Seen:	2013-01-24
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2013-01-24	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-09-17	
Quad Summary:	Bollinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.93384 / -122.65471			Accuracy:	80 meters		
UTM:	Zone-10 N4198531 E530342			Elevation (ft):	1532		
PLSS:	T01N, R07W, Sec. 08, SW (M)			Acres:	0.0		
Location:	BETWEEN AUDUBON CANYON AND MORSES GULCH; APPROXIMATELY 1 AIR MILE SW OF ALPINE DAM, GOLDEN GATE NATIONAL REC AREA.						
Detailed Location:	MAPPED ACCORDING TO 2013 CHASSE COORDINATES IN THE NE 1/4 OF THE SW 1/4 OF SECTION 8.						
Ecological:	FOREST EDGE.						
General:	FEWER THAN 50 PLANTS OBSERVED IN 2013.						
Owner/Manager:	NPS-GGNRA						
Occurrence No.	33	Map Index:	93853	EO Index:	94975	Element Last Seen:	2004-01-30
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2004-01-30	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-09-17	
Quad Summary:	Bollinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.95821 / -122.68342			Accuracy:	specific area		
UTM:	Zone-10 N4201226 E527810			Elevation (ft):	1500		
PLSS:	T01N, R08W, Sec. 01, NE (M)			Acres:	11.0		
Location:	BOLLINAS RIDGE ROAD, BETWEEN COPPER MINE GULCH AND LEWIS GULCH, GOLDEN GATE NATIONAL RECREATION AREA.						
Detailed Location:	BOTH SIDES OF TRAIL. MAPPED ACCORDING TO 2007 DIGITAL DATA IN THE NE 1/4 OF THE NE 1/4 OF SECTION 1.						
Ecological:	ON EDGE OF CHAPARRAL AND DOUGLAS-FIR/REDWOOD FOREST. ASSOCIATED WITH LITHOCARPUS DENSIFLORUS, ARBUTUS MENZIESII, AND VACCINIUM OVATUM.						
General:	APPROXIMATELY 25 INDIVIDUALS OBSERVED IN 2004. SOME PLANTS APPEAR INTERMEDIATE BETWEEN A. VIRGATA AND A. GLANDULOSA.						
Owner/Manager:	NPS-GGNRA						



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Occurrence No.	34	Map Index:	93854	EO Index:	94977	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	2014-09-17
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.97359 / -122.71087			Accuracy:	3/5 mile		
UTM:	Zone-10 N4202924 E525393			Elevation (ft):			
PLSS:	T02N, R08W, Sec. 35 (M)			Acres:	0.0		
Location:	TWO RIDGES NORTH OF MCCURDY TRAIL, BOLINAS RIDGE.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS BEST GUESS TO ENCOMPASS RIDGES NORTH OF MCCURDY TRAIL.						
Ecological:							
General:	ONLY SOURCE FOR THIS SITE IS A NOTE IN A 2007 PARKER REPORT THAT THE TWO RIDGES NORTH OF MCCURDY TRAIL ALSO CONTAIN A. VIRGATA. ABOUT 25 INDIVIDUALS ON EACH RIDGE; DATE OF OBSERVATION UNKNOWN.						
Owner/Manager:	NPS-GGNRA						

Occurrence No.	35	Map Index:	93855	EO Index:	94978	Element Last Seen:	2001-02-21
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	2014-09-18
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			
Quad Summary:	Bolinás (3712286), Double Point (3712287)						
County Summary:	Marin						
Lat/Long:	37.97268 / -122.75294			Accuracy:	specific area		
UTM:	Zone-10 N4202813 E521699			Elevation (ft):	1200		
PLSS:	T02N, R08W, Sec. 33, NW (M)			Acres:	29.0		
Location:	VICINITY OF MUD LAKE, POINT REYES NATIONAL SEASHORE.						
Detailed Location:	MAPPED BY CNDDDB AS 2 POLYGONS ACCORDING TO A 2001 MAP, IN THE WEST 1/2 OF THE NW 1/4 OF SECTION 33.						
Ecological:	OPEN AREA ON THE EDGE OF A DOUGLAS-FIR FOREST DOMINATED BY VACCINIUM OVATUM AND QUERCUS AGRIFOLIA.						
General:	1000+ PLANTS OBSERVED IN 1983 (LIVING AND DEAD PLANTS FOUND). IN 2001, ABOUT 500 DEAD, MATURE ARCTOSTAPHYLOS VIRGATA (AND POSSIBLY A. GLANDULOSA) WERE OBSERVED NEAR MUD LAKE. 15+ PLANTS ESTIMATED IN EASTERN POLYGON IN 2001.						
Owner/Manager:	NPS-POINT REYES NS						

<i>Amorpha californica var. napensis</i>			Element Code: PDFAB08012				
Napa false indigo							
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G4T2		
	State:	None		State:	S2		
	Other:	Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden					
Habitat:	General:	BROADLEAFED UPLAND FOREST, CHAPARRAL, CISMONTANE WOODLAND.					
	Micro:	OPENINGS IN FOREST OR WOODLAND OR IN CHAPARRAL. 30-735 M					



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Occurrence No.	4	Map Index: B1181	EO Index: 45202	Element Last Seen:	2017-08-12
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2017-08-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2023-05-15
Quad Summary:	Bolinás (3712286), San Geronimo (3812216)				
County Summary:	Marin				
Lat/Long:	38.00079 / -122.70843		Accuracy:	non-specific area	
UTM:	Zone-10 N4205943 E525599		Elevation (ft):	180	
PLSS:	T02N, R08W, Sec. 23, NW (M)		Acres:	3.0	
Location:	LAGUNITAS CREEK APPROXIMATELY 0.24 MI AND 0.33 MI NORTH OF PETERS DAM, SOUTH OF LAGUNITAS.				
Detailed Location:	2 POLYGONS MAPPED ACCORDING TO 2014 COORDINATES FROM DICK AND 2017 COORDINATES FROM SCOTT IN THE NE 1/4 OF THE NW 1/4 OF SECTION 23. TRAIL OFF SHAFTER GRADE, NEAR JCT WITH DOG CREEK. ON LEFT BANK OF CREEK UNDER ROAD.				
Ecological:	JUST BELOW ORDINARY HIGH WATER LINE ON LEFT BANK OF THE CREEK CHANNEL OF LAGUNITAS CREEK. IN RIPARIAN COMMUNITY ALONG LAGUNITAS CREEK WITH COAST REDWOOD FOREST/DOUGLAS-FIR FOREST. ON LARGE BOULDER ON STEEP BANK. EAST FACING STREAMBANK.				
General:	3-5 PLANTS SEEN IN S POLY IN 2014. 2 PLANTS (BUT POSSIBLY ONE) SEEN IN N POLY IN 2017. VAGUE HISTORIC COLLECTIONS FROM "LAGUNTAS" AND "LAGUNITAS STATION" ARE ATTRIBUTED HERE. A 2016 PHOTO BY STEERS IS ATTRIBUTED HERE.				
Owner/Manager:	MARIN MWD				
Occurrence No.	35	Map Index: 45289	EO Index: 45289	Element Last Seen:	2015-02-19
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2015-02-19
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2023-05-18
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.94053 / -122.64697		Accuracy:	specific area	
UTM:	Zone-10 N4199275 E531020		Elevation (ft):	672	
PLSS:	T01N, R07W, Sec. 8, NE (M)		Acres:	6.0	
Location:	JUST WEST OF ALPINE LAKE, SOUTH SIDE OF LAGUNITAS CREEK ABOUT 0.45 MILE WEST OF ALPINE DAM, BOLINAS RIDGE.				
Detailed Location:	2 POLYGONS MAPPED BY CNDDB ACCORDING TO 2002 KLEIN DIGITAL DATA, 2013 COORDINATES FROM CASTNER, AND 2015 COORDINATES FROM GUNNISON. IN THE SE 1/4 OF THE NE 1/4 OF SECTION 8.				
Ecological:	GREENSTONE OUTCROP IN DOUGLAS-FIR FOREST. ROADSIDE EDGE OF BAY FOREST.				
General:	N POLY: UNKNOWN NUMBER OF PLANTS SEEN IN 2002. 2 PATCHES SEEN IN 2015. 2 PATCHES SEEN IN S POLY IN 2013. A FOLLETTE OBSERVATION FROM "PUMP ROAD BELOW ALPINE DAM ABOUT 1 MILE" IS ALSO ATTRIBUTED TO THIS SITE.				
Owner/Manager:	MARIN MWD				



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Occurrence No.	52	Map Index:	96834	EO Index:	98046	Element Last Seen:	2022-10-04
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2022-10-04	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2023-05-25	
Quad Summary:	Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.93584 / -122.6368			Accuracy:	specific area		
UTM:	Zone-10 N4198759 E531916			Elevation (ft):	637		
PLSS:	T01N, R07W, Sec. 9, SW (M)			Acres:	17.0		
Location:	~0.1-0.5 AIR MI S OF ALPINE DAM, 0.7-1.0 AIR MI NNW OF CATARACT FALLS, SW ARM OF ALPINE LAKE.						
Detailed Location:	POLYGON MAPPED BY CNDDDB ACCORDING TO 2003 COORDINATES FROM KLEIN, 2012 COORDINATES AND POLYGON FROM WILLIAMS, 2019 COORDINATES FROM MALLIN, AND 2022 COORDINATES FROM KLEIN. NARROW BAND AROUND SHORELINE.						
Ecological:	SHORE OF ALPINE LAKE. MIXED CONIFER FOREST.						
General:	"FEW" PLANTS SEEN IN 2012, POSSIBLY MORE PLANTS UP DRAINAGES. 3 PLANTS SEEN IN 2019. SEEN IN 2022. A 2005 OBSERVATION FROM A "CATARACT TRAIL TO LAUREL DELL FROM ALPINE DAM" CHECKLIST IS ATTRIBUTED HERE.						
Owner/Manager:	MARIN MWD						
Occurrence No.	53	Map Index:	96836	EO Index:	98049	Element Last Seen:	2022-04-20
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		2022-04-20	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2023-03-16	
Quad Summary:	Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.97242 / -122.67683			Accuracy:	specific area		
UTM:	Zone-10 N4202804 E528385			Elevation (ft):	400		
PLSS:	T02N, R07W, Sec. 31 (M)			Acres:	649.0		
Location:	BOTH SIDES OF KENT LAKE; FROM ABOUT 0.5 AIR MILE SOUTH OF PETERS DAM EXTENDING SOUTH TO LAGUNITAS CREEK.						
Detailed Location:	POLYGONS MAPPED BY CNDDDB TO ENCOMPASS 2007 KLEIN DIGITAL DATA, 2010 WILLIAMS DIGITAL DATA, AND COORDINATES FROM 2010, 2015, 2017-2019, 2021, AND 2022. INCLUDES A 1943 BACIGALUPI COLLECTION FROM "TRAILSIDE AT BOTTOM OF BIG CARSON CANYON."						
Ecological:	IN SUNNY OPENINGS ON ROADCUTS MOSTLY WITHIN 100 FEET OF ROAD. ASSOCIATED WITH DOUGLAS-FIR, TAN OAK, REDWOOD, AND MADRONE. MIXED CONIFER-HARDWOOD FOREST. FOREST EDGE.						
General:	POP #S ARE FOR PORTIONS OF OCC: SEEN IN 2002, ~400 PLANTS 2003, SEEN IN 2005, ~700 PLANTS IN 2010, ABUNDANT IN 2015, SEEN IN 2017 & 2018, 12-42 PLANTS IN 2019, SEEN IN 2021 & 2022. INCLUDES FORMER EO#S 54, 55, & 56.						
Owner/Manager:	MARIN MWD						



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Occurrence No.	92	Map Index: B8664	EO Index: 123793	Element Last Seen:	2019-07-19
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2019-07-19
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2023-05-30
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.94195 / -122.63042		Accuracy:	specific area	
UTM:	Zone-10 N4199439 E532474		Elevation (ft):	675	
PLSS:	T01N, R07W, Sec. 9, NE (M)		Acres:	4.0	
Location:	ALPINE LAKE SHORE, NEAR OUTLET OF SWEDE GEORGE, 0.25 AIR MI SW JCT KENT TRAIL AND HELEN MARKET TRAIL.				
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO 2018 POLYGON AND COORDINATES FROM WILLIAMS AND 2019 COORDINATES FROM ZAVALA.				
Ecological:	FOREST EDGE, LAKESHORE. CONIFEROUS FOREST OR WOODLAND.				
General:	1 PLANT SEEN IN 2018. 1-10 PLANTS SEEN IN 2019.				
Owner/Manager:	MARIN MWD				
Occurrence No.	93	Map Index: B8665	EO Index: 123794	Element Last Seen:	2013-05-21
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2013-05-21
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2023-05-30
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.95129 / -122.63279		Accuracy:	specific area	
UTM:	Zone-10 N4200474 E532261		Elevation (ft):	777	
PLSS:	T01N, R07W, Sec. 4, SE (M)		Acres:	1.0	
Location:	BOLINAS-FAIRFAX ROAD AFTER MILE MARKER 6.33, ~0.5 AIR MI SSE OF DUCHMANS ROCK AND ~0.4 AIR MILE NE OF OAT HILL.				
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO MARIN MWD DIGITAL DATA. DOWNSLOPE OF THE ROAD.				
Ecological:	SUNNY OPENING IN MADRONE HARDWOOD FOREST AT ROAD EDGE.				
General:	1-10 PLANTS SEEN IN 2013.				
Owner/Manager:	MARIN MWD				
Occurrence No.	126	Map Index: B8717	EO Index: 123847	Element Last Seen:	2022-09-27
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2022-09-27
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2023-03-20
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.92873 / -122.63803		Accuracy:	specific area	
UTM:	Zone-10 N4197970 E531811		Elevation (ft):	1500	
PLSS:	T01N, R07W, Sec. 16, NW (M)		Acres:	1.0	
Location:	ABOUT 0.8 AIR MILE SOUTH OF ALPINE DAM AND 0.4 AIR MILE EAST OF MCKINNAN GULCH MINE, NORTHWEST OF MOUNT TAMALPIAS.				
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO 2022 COORDINATES FROM GREENBERGER.				
Ecological:					
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 2022.				
Owner/Manager:	MARIN MWD				



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<i>Astragalus pycnostachyus var. pycnostachyus</i>		Element Code: PDFAB0F7B2
coastal marsh milk-vetch		
Listing Status:	Federal: None	CNDDDB Element Ranks: Global: G2T2
	State: None	State: S2
Habitat:	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	
	General: COASTAL DUNES,MARSHES AND SWAMPS, COASTAL SCRUB.	
	Micro: MESIC SITES IN DUNES OR ALONG STREAMS OR COASTAL SALT MARSHES. 0-155 M.	

Occurrence No.	10	Map Index: 08311	EO Index: 49633	Element Last Seen: 1945-06-30
Occ. Rank:	None		Presence: Possibly Extirpated	Site Last Seen: 1945-06-30
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2016-02-18

Quad Summary:	Bolinas (3712286)
County Summary:	Marin

Lat/Long:	37.90190 / -122.64620	Accuracy:	1 mile
UTM:	Zone-10 N4194990 E531103	Elevation (ft):	
PLSS:	T01N, R07W, Sec. 29 (M)	Acres:	0.0

Location:	STINSON BEACH, BOLINAS BAY.
Detailed Location:	EXACT LOCATION UNKNOWN, MAPPED BY CNDDDB IN GENERAL VICINITY OF STINSON BEACH.
Ecological:	IN SALT MARSH WITHIN REACH OF TIDE.
General:	TYPE LOCALITY. MOST RECENTLY SEEN AT STINSON BEACH ACCORDING TO A 1945 HOWELL COLLECTION. SEVERAL HISTORIC COLLECTIONS FROM BOLINAS BAY ALSO ATTRIBUTED HERE. HASN'T BEEN SEEN OR REPORTED HERE IN YEARS (SMITH 2004). POSSIBLY EXTIRPATED.
Owner/Manager:	UNKNOWN



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<i>Trifolium amoenum</i>		Element Code: PDFAB40040	
two-fork clover			
Listing Status:	Federal: Endangered	CNDDDB Element Ranks:	Global: G1
	State: None		State: S1
Other:	Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley, SB_USDA-US Dept of Agriculture		
Habitat:	General: VALLEY AND FOOTHILL GRASSLAND, COASTAL BLUFF SCRUB.		
	Micro: SOMETIMES ON SERPENTINE SOIL, OPEN SUNNY SITES, SWALES. MOST RECENTLY CITED ON ROADSIDE AND ERODING CLIFF FACE. 5-310 M.		

Occurrence No.	3	Map Index: 08311	EO Index: 19171	Element Last Seen:	1927-04-24
Occ. Rank:	None		Presence: Possibly Extirpated	Site Last Seen:	1985-04-23
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1989-08-11
Quad Summary:	Bolinias (3712286)				
County Summary:	Marin				
Lat/Long:	37.90190 / -122.64620		Accuracy:	1 mile	
UTM:	Zone-10 N4194990 E531103		Elevation (ft):		
PLSS:	T01N, R07W, Sec. 29 (M)		Acres:	0.0	
Location:	STINSON BEACH.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS BEST GUESS CENTERED ON STINSON BEACH.				
Ecological:					
General:	HABITAT TYPE SEARCHED FOR IN 1985; SPECIES NOT FOUND.				
Owner/Manager:	UNKNOWN				

<i>Quercus parvula var. tamalpaisensis</i>		Element Code: PDFAG051Q3	
Tamalpais oak			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G4T2
	State: None		State: S2
Other:	Rare Plant Rank - 1B.3		
Habitat:	General: LOWER MONTANE CONIFEROUS FOREST, CISMONTANE WOODLAND.		
	Micro: 200-640 M.		



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Occurrence No.	7	Map Index: 46537	EO Index: 46537	Element Last Seen: 1993-07-08
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1993-07-08
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2020-12-04

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.98935 / -122.68583	Accuracy:	non-specific area
UTM:	Zone-10 N4204679 E527587	Elevation (ft):	850
PLSS:	T02N, R08W, Sec. 25, NE (M)	Acres:	21.0

Location: WEST SIDE OF PINE RIDGE ROAD, 0.8 MI S OF NE-TRENDING ARM OF KENT LAKE, NW SLOPE OF PINE MOUNTAIN RIDGE.

Detailed Location: MAPPED AS BEST GUESS BY CNDDDB ALONG PINE RIDGE ROAD AROUND GIVEN ELEVATION OF 259 M (~850 FT).

Ecological:

General: MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1993 LANGER COLLECTION; TREE TO 7M, LARGEST AND TALLEST OF THIS VAR. KNOWN. 1993 LANGER ARTICLE REPORTS "TWO POPULATIONS ON PINE MOUNTAIN RIDGE." NEEDS FIELDWORK.

Owner/Manager: MARIN MWD

Occurrence No.	8	Map Index: 46538	EO Index: 46538	Element Last Seen: 2016-04-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 2016-04-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2020-12-04

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94878 / -122.64618	Accuracy:	80 meters
UTM:	Zone-10 N4200191 E531086	Elevation (ft):	532
PLSS:	T01N, R07W, Sec. 5, SE (M)	Acres:	5.0

Location: ALONG KENT PUMP ROAD, APPROXIMATELY 0.7 AIR MILE NORTHWEST OF ALPINE DAM.

Detailed Location: MAPPED ACCORDING TO 2016 WILLIAMS COORDINATES, IN THE SE 1/4 OF THE SE 1/4 OF SECTION 5.

Ecological: FOREST EDGE.

General: UNKNOWN NUMBER OF PLANTS SEEN IN 2016. A 1993 LANGER ARTICLE MENTIONS THAT "PROFESSOR TUCKER HAS DISCOVERED A FEW POPULATIONS ALONG KENT PUMP ROAD, NORTH OF LAKE ALPINE DAM."

Owner/Manager: MARIN MWD

Occurrence No.	18	Map Index: B6653	EO Index: 119716	Element Last Seen: 1993-02-22
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1993-02-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2020-12-08

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94122 / -122.62575	Accuracy:	non-specific area
UTM:	Zone-10 N4199359 E532885	Elevation (ft):	800
PLSS:	T01N, R07W, Sec. 10, NW (M)	Acres:	18.0

Location: WEST SIDE OF KENT TRAIL, ABOUT 0.3 MILE SOUTH OF LAKE ALPINE.

Detailed Location: EXACT LOCATION UNKNOWN, MAPPED BY CNDDDB AS A BEST GUESS.

Ecological: EDGE OF WOODLAND.

General: SITE IS BASED ON A 1993 LANGER COLLECTION. NEEDS FIELDWORK.

Owner/Manager: MARIN MWD



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Occurrence No.:	20	Map Index:	B6658	EO Index:	119720	Element Last Seen:	2009-03-08
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	2020-12-08
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94927 / -122.67078	Accuracy:	non-specific area
UTM:	Zone-10 N4200238 E528925	Elevation (ft):	1635
PLSS:	T01N, R07W, Sec. 6 (M)	Acres:	85.0

Location: BOLINAS RIDGE FIRE ROAD, NORTH OF FAIRFAX-BOLINAS ROAD.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB ALONG BOLINAS RIDGE FIRE ROAD TO ENCOMPASS PORTIONS OF THE ROAD AT GIVEN ELEVATION OF 1635 FT.

Ecological:

General: SITE IS BASED ON A 2009 OBSERVATION BY KEELAN. NEEDS FIELDWORK.

Owner/Manager: NPS-GOLDEN GATE NRA, MARIN MWD

<i>Hesperolinon congestum</i>		Element Code: PDLIN01060
Marin western flax		
Listing Status:	Federal: Threatened	CNDDDB Element Ranks: Global: G1
	State: Threatened	State: S1
Other:	Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley	
Habitat:	General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.	
	Micro: IN SERPENTINE BARRENS AND IN SERPENTINE GRASSLAND AND CHAPARRAL. 60-400 M.	

Occurrence No.:	12	Map Index:	21228	EO Index:	20772	Element Last Seen:	1998-06-24
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	2007-08-23
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.98547 / -122.65432	Accuracy:	80 meters
UTM:	Zone-10 N4204259 E530355	Elevation (ft):	1200
PLSS:	T02N, R07W, Sec. 29, NW (M)	Acres:	0.0

Location: CARSON RIDGE. 0.6 MILE DUE NORTH AND SLIGHTLY WEST OF PINE MOUNTAIN SUMMIT.

Detailed Location:

Ecological: IN SERPENTINE CHAPARRAL (HAD BEEN BURNED IN 1985 ACCORDING TO N. MCCARTEN). WITH QUERCUS DURATA, ADENOSTOMA, ARCTOSTAPHYLOS MONTANA, AND STREPTANTHUS GLANDULOSUS PULCHELLUS.

General: ABOUT 75 PLANTS SEEN IN 1986, TOTAL OF SEVERAL HUNDRED TO A FEW THOUSAND PLANTS SEEN HERE AND AT OCCURRENCE #23 IN 1990. AREA IS AN ECOLOGICAL RESERVE ACCORDING TO MCCARTEN (1986).

Owner/Manager: MARIN MWD



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Occurrence No.	23	Map Index: 21229	EO Index: 30275	Element Last Seen:	2015-05-20
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2015-05-20
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2018-04-20

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96521 / -122.62514	Accuracy:	specific area
UTM:	Zone-10 N4202021 E532928	Elevation (ft):	1065
PLSS:	T02N, R07W, Sec. 34, SW (M)	Acres:	37.0

Location: NORTH OF ALPINE LAKE, NEAR JUNCTION OF FAIRFAX BOLINAS ROAD WITH PINE MOUNTAIN TRUCK ROAD, CARSON RIDGE.

Detailed Location: 4 POLYGONS MAPPED ON BOTH SIDES OF FAIRFAX BOLINAS RD, BUT PRIMARILY ALONG PINE MOUNTAIN TRUCK TRAIL. IN THE SW 1/4 OF SECTION 34 AND IN THE NE 1/4 OF THE SE 1/4 OF SECTION 33. MAPPED ACCORDING TO MAPS FROM THE 1990S AND 2014 & 2015 POINTS.

Ecological: OPEN, ROCKY PLACES IN SERPENTINE CHAPARRAL WITH ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS HOOKERI MONTANA, NAVARRETIA ROSULATA, HESPEROLINON MICRANTHUM, CALYCADENIA MULTIGLANDULOSA, MINUARTIA DOUGLASII, TRITELEIA LAXA, AND NASSELLA PULCHRA.

General: TOTAL OF SEVERAL HUNDRED TO A FEW THOUSAND PLANTS SEEN BETW THIS EO AND EO #12 IN 1990. 242 PLANTS SEEN IN FAR SE COLONY IN 1994. 2951 PLANTS SEEN IN ALL COLONIES IN 1997. 135 PLANTS IN 2002. SEEN IN 2014 & 2015. INCLUDES FORMER EO #27.

Owner/Manager: MARIN MWD

Occurrence No.	35	Map Index: A9163	EO Index: 111002	Element Last Seen:	2015-06-09
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2015-06-09
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2018-04-25

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.99682 / -122.6546	Accuracy:	80 meters
UTM:	Zone-10 N4205518 E530326	Elevation (ft):	1315
PLSS:	T02N, R07W, Sec. 20 (M)	Acres:	5.0

Location: NORTH OF THE HEAD OF BIG CARSON CREEK, ABOUT 0.95 AIR MILE EAST OF GREEN HILL, SAN GERONIMO RIDGE.

Detailed Location: MAPPED ACCORDING TO COORDINATES PROVIDED WITH GEO-TAGGED WILLIAMS PHOTOS. NEAR THE CENTER OF SECTION 20.

Ecological: IN STIPA GRASSLAND NEAR GRASSLAND/CHAPARRAL INTERFACE.

General: FEWER THAN 100 PLANTS OBSERVED IN 2015.

Owner/Manager: MARIN MWD



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<i>Sidalcea calycosa ssp. rhizomata</i>		Element Code: PDMAL11012	
Point Reyes checkerbloom			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5T2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2		
Habitat:	General: MARSHES AND SWAMPS.		
	Micro: FRESHWATER MARSHES NEAR THE COAST.5-95 M.		

Occurrence No.	1	Map Index: 26548	EO Index: 534	Element Last Seen:	1922-04-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1922-04-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1996-02-06

Quad Summary: San Rafael (3712285), Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.98131 / -122.60804	Accuracy:	1 mile
UTM:	Zone-10 N4203814 E534421	Elevation (ft):	300
PLSS:	T02N, R07W, Sec. 27 (M)	Acres:	0.0

Location: SAN ANSELMO CANYON.
Detailed Location:
Ecological:
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1922 COLLECTION BY SUTTLIFF.
Owner/Manager: UNKNOWN

<i>Sidalcea hickmanii ssp. viridis</i>		Element Code: PDMAL110A4	
Marin checkerbloom			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G2TH
	State: None		State: SH
	Other: Rare Plant Rank - 1B.1		
Habitat:	General: CHAPARRAL.		
	Micro: SERPENTINE OR VOLCANIC SOILS; SOMETIMES APPEARS AFTER BURNS. 1-425 M.		

Occurrence No.	1	Map Index: 36005	EO Index: 31002	Element Last Seen:	1954-06-23
Occ. Rank:	None		Presence: Possibly Extirpated	Site Last Seen:	2016-06-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2022-12-02

Quad Summary: Bolinas (3712286), San Geronimo (3812216)
County Summary: Marin

Lat/Long:	37.99381 / -122.64913	Accuracy:	1 mile
UTM:	Zone-10 N4205186 E530807	Elevation (ft):	1390
PLSS:	T02N, R07W, Sec. 20 (M)	Acres:	0.0

Location: BIG CARSON RIDGE, NORTHWEST OF MOUNT TAMALPAIS.
Detailed Location: EXACT LOCATION NOT KNOWN. MAPPED AS BEST GUESS ALONG RIDGE AT HEAD OF BIG CARSON CREEK, TRIBUTARY TO KENT LAKE.
Ecological: CHAPARRAL BURN ON SERPENTINE SOILS.
General: TYPE LOCALITY. SITE BASED ON COLLECTIONS BY EASTWOOD IN 1925, SUTLIFFE IN 1925, LESCHKE IN 1942, HOWELL IN 1942, 1946 & 1954. NO PLANTS SEEN IN 1996. NO PLANTS SEEN IN RECENT SEARCHES IN 2000-2016. PLANTS MAY RETURN WITH FIRE.
Owner/Manager: MRN COUNTY OPEN SPACE



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<i>Eriogonum luteolum var. caninum</i>		Element Code: PDPGN083S1
Tiburon buckwheat		
Listing Status:	Federal: None	CNDDB Element Ranks: Global: G5T2
	State: None	State: S2
	Other: Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	
Habitat:	General: CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND, COASTAL PRAIRIE.	
	Micro: SERPENTINE SOILS; SANDY TO GRAVAELLY SITES. 60-640 M.	

Occurrence No.	9	Map Index: 70399	EO Index: 71293	Element Last Seen:	2007-08-27
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2007-08-27
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-07-22
Quad Summary:	San Rafael (3712285), Bolinas (3712286), San Geronimo (3812216)				
County Summary:	Marin				
Lat/Long:	37.97071 / -122.63958		Accuracy:	specific area	
UTM:	Zone-10 N4202627 E531656		Elevation (ft):		
PLSS:	T02N, R07W, Sec. 33 (M)		Acres:	778.0	
Location:	NW OF MT. TAMALPAIS; BETWEEN BOLINAS RIDGE AND FAIRFAX.				
Detailed Location:	FROM VICINITY OF GREEN HILL IN THE NORTH EXTENDING SW TO JUST SOUTH OF ALPINE LAKE. MAPPED AS 18 POLYGONS ACCORDING TO "SENSITIVE PLANT SURVEY OF THE MARIN MUNICIPAL WATER DISTRICT" MAP. AZALEA HILL/CARSON RIDGE REFERENCE ATTRIBUTED HERE.				
Ecological:	SERPENTINE AREA.				
General:	OBSERVED IN 1988-1990 SURVEYS. A 2007 GOWEN COLLECTION FROM AZALEA HILL IS ALSO ATTRIBUTED HERE. E. LUTEOLUM PLANTS ON AND NEAR MT. TAMALPAIS ARE OFTEN DIFFICULT TO ASSIGN TO A VARIETY. NEEDS FIELDWORK TO CHECK ID OF PLANTS.				
Owner/Manager:	MARIN MWD				

Occurrence No.	10	Map Index: 70398	EO Index: 71292	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-07-22
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.94195 / -122.63948		Accuracy:	80 meters	
UTM:	Zone-10 N4199436 E531676		Elevation (ft):	900	
PLSS:	T01N, R07W, Sec. 09, NW (M)		Acres:	0.0	
Location:	NEAR ALPINE DAM, ON THE SW END OF ALPINE LAKE.				
Detailed Location:	MAPPED ACCORDING TO "SENSITIVE PLANT SURVEY OF THE MARIN MUNICIPAL WATER DISTRICT" MAP. A 1933 CRUM COLLECTION FROM "5 MILES SW OF MEADOW CLUB GOLF LINKS" ALSO ATTRIBUTED TO THIS SITE.				
Ecological:					
General:	OBSERVED IN 1988-1990 SURVEYS. E. LUTEOLUM PLANTS ON AND NEAR MT. TAMALPAIS ARE OFTEN DIFFICULT TO ASSIGN TO A VARIETY. NEEDS FIELDWORK TO CHECK ID OF PLANTS.				
Owner/Manager:	MARIN MWD				



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Occurrence No.:	11	Map Index: 42041	EO Index: 71294	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2014-07-22

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.98633 / -122.63408	Accuracy:	specific area
UTM:	Zone-10 N4204361 E532132	Elevation (ft):	1025
PLSS:	T02N, R07W, Sec. 28, NE (M)	Acres:	6.0

Location: ALONG CASCADE DRIVE, NORTH OF SAN ANSELMO CREEK AND SOUTH OF CASCADE CREEK, WEST OF FAIRFAX.

Detailed Location: MAPPED ACCORDING TO "SENSITIVE PLANT SURVEY OF THE MARIN MUNICIPAL WATER DISTRICT" MAP.

Ecological:

General: OBSERVED IN 1988-1990 SURVEYS. E. LUTEOLUM PLANTS ON AND NEAR MT. TAMALPAIS ARE OFTEN DIFFICULT TO ASSIGN TO A VARIETY. NEEDS FIELDWORK TO CHECK ID OF PLANTS.

Owner/Manager: MARIN MWD

<i>Gilia capitata ssp. chamissonis</i>		Element Code: PDPLM040B3
blue coast gilia		
Listing Status:	Federal: None	CNDDB Element Ranks: Global: G5T2
	State: None	State: S2
	Other: Rare Plant Rank - 1B.1, SB_UCBG-UC Botanical Garden at Berkeley	
Habitat:	General: COASTAL DUNES, COASTAL SCRUB.	
	Micro: 3-200 M.	

Occurrence No.:	9	Map Index: 08311	EO Index: 55606	Element Last Seen:	1905-06-26
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1905-06-26
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2004-05-25

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.90190 / -122.64620	Accuracy:	1 mile
UTM:	Zone-10 N4194990 E531103	Elevation (ft):	40
PLSS:	T01N, R07W, Sec. 29 (M)	Acres:	0.0

Location: BOLINAS BAY.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDB, IN THE VICINITY OF BOLINAS BAY NEAR STINSON BEACH.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1905 BRANDEGEE COLLECTION. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



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Gilia capitata ssp. tomentosa

Element Code: PDPLM040B9

woolly-headed gilia

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5T2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: COASTAL BLUFF SCRUB, VALLEY AND FOOTHILL GRASSLAND, RIPARIAN WOODLAND.		
	Micro: ROCKY OUTCROPS, SOMETIMES SERPENTINE. 6-290 M.		

Occurrence No.	11	Map Index:	52921	EO Index:	52921	Element Last Seen:	1946-06-20
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1946-06-20	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2020-09-18	

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.98194 / -122.73957	Accuracy:	non-specific area
UTM:	Zone-10 N4203843 E522870	Elevation (ft):	400
PLSS:	T02N, R08W, Sec. 28 (M)	Acres:	69.6

Location: STREAM BELOW FIVE BROOKS, 6 MILES NORTH OF BOLINAS.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB SOUTH OF FIVE BROOK AND ABOUT 6 MILES NORTH OF BOLINAS.

Ecological: GRASSY SW-FACING SLOPE.

General: SITE BASED ON A 1934 CARTER COLLECTION FROM "STREAM BELOW FIVE-BROOK, OLEMA-BOLINAS ROAD" AND A 1946 HOWELL COLLECTION FROM "6 MILES N OF BOLINAS". 1915 EASTWOOD COLLECTION FROM "POINT REYES" ALSO ATTRIBUTED HERE. NEEDS FIELDWORK.

Owner/Manager: NPS-POINT REYES NS



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<i>Gilia millefoliata</i>		Element Code: PDPLM04130	
dark-eyed gilia			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: COASTAL DUNES.		
	Micro: 1-60 M.		

Occurrence No.	46	Map Index:	A1392	EO Index:	102969	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	2016-08-09
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			

Quad Summary: Point Bonita (3712275), San Rafael (3712285), Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.89565 / -122.60105	Accuracy:	non-specific area
UTM:	Zone-10 N4194313 E535077	Elevation (ft):	
PLSS:	T01N, R07W, Sec. 26 (M)	Acres:	6902.0

Location: MOUNT TAMALPAIS STATE PARK.
Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB TO ENCOMPASS MOUNT TAMALPAIS SP.
Ecological:
General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1978 CHECKLIST, UNKNOWN WHEN PLANTS SEEN. NEEDS FIELDWORK.
Owner/Manager: DPR-MOUNT TAMALPAIS SP

<i>Navarretia rosulata</i>		Element Code: PDPLM0C0Z0	
Marin County navarretia			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: CLOSED-CONE CONIFEROUS FOREST, CHAPARRAL.		
	Micro: DRY, OPEN ROCKY PLACES; CAN OCCUR ON SERPENTINE. 185-640 M.		



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Occurrence No.	3	Map Index: 28949	EO Index: 30483	Element Last Seen:	2014-06-10
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2014-06-10
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2017-06-05

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.9482 / -122.61456	Accuracy:	specific area
UTM:	Zone-10 N4200138 E533864	Elevation (ft):	1200
PLSS:	T01N, R07W, Sec. 3 (M)	Acres:	51.0

Location: NORTHWEST SLOPE OF MOUNT TAMALPAIS, ALONG ROCKY RIDGE FROM JUST ABOVE ALPINE LAKE SOUTH ABOUT 1.25 MILES.

Detailed Location: 8 POLYGONS MAPPED ACCORDING TO A 1990 PATTERSON MAP AND 2014 GREENBERGER COORDINATES.

Ecological: SERPENTINE SOILS.

General: UNKNOWN NUMBER OF PLANTS SEEN ALONG RIDGE DURING 1988-1990 SURVEYS. SEEN IN WESTERNMOST POLYGON IN 2014. A 1941 HOWELL COLLECTION FROM "ROCKY RIDGE FIRE TRAIL" AND 2007 DOYEN PHOTOS FROM "ROCKY RIDGE TRAIL" ARE ATTRIBUTED HERE.

Owner/Manager: MARIN MWD

Occurrence No.	4	Map Index: 28956	EO Index: 30493	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2017-06-05

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96071 / -122.63131	Accuracy:	specific area
UTM:	Zone-10 N4201520 E532387	Elevation (ft):	900
PLSS:	T02N, R07W, Sec. 33, SE (M)	Acres:	15.0

Location: NORTH OF ALPINE LAKE AND WEST OF LIBERTY GULCH.

Detailed Location: ALONG WEST SIDE OF ROAD JUST WEST OF LIBERTY GULCH. 2 POLYGONS MAPPED ACCORDING TO A 1990 PATTERSON MAP.

Ecological: SERPENTINE SOILS.

General: UNKNOWN NUMBER OF PLANTS SEEN DURING 1988-1990 SURVEYS. A 1945 HOWELL COLLECTION FROM "NEAR LIBERTY'S" IS ALSO ATTRIBUTED TO THIS SITE.

Owner/Manager: MARIN MWD



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Occurrence No.	5	Map Index: 28957	EO Index: 30492	Element Last Seen:	2014-03-22
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2014-03-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2017-06-06

Quad Summary: San Rafael (3712285), Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.9663 / -122.62623	Accuracy:	non-specific area
UTM:	Zone-10 N4202142 E532831	Elevation (ft):	1150
PLSS:	T02N, R07W, Sec. 34, SW (M)	Acres:	42.0

Location: NORTH OF ALPINE LAKE ALONG PINE MOUNTAIN TRUCK ROAD AND AZALEA HILL TRAIL, ABOUT 0.5 MILE NORTHEAST OF LIBERTY GULCH.

Detailed Location: ON BOTH SIDES OF FAIRFAX BOLINAS ROAD. 2 POLYGONS MAPPED BY CNDDDB; WESTERN POLYGON IS SPECIFIC, BASED ON MAPS FROM 1990 & 1994. EASTERN POLYGON IS NON-SPECIFIC, BASED ON 2007 COLLECTION FROM "TRAIL TO AZALEA HILL."

Ecological: SERPENTINE RIDGE IN OPEN CHAPARRAL W/ CEANOTHUS JEPSONII, ADENOSTOMA FASCICULATUM, ERIODICTYON CALIFORNICUM, MONARDELLA FRANCISCANA, ERIOGONUM LUTEOLUM, CLAYTONIA GYPSOPHYLLOIDES, QUERCUS DURATA, PICKERINGIA MONTANA, AND CALYSTEGIA COLLINA.

General: NORTHWESTERN POLYGON: SEEN DURING 1988-1990 SURVEYS, 1000+ PLANTS OBSERVED BY FOLLETTE IN 1994, UNK # IN 1996. SOUTHEASTERN POLYGON IS BASED ON A 2007 GOWEN COLLECTION. ALSO INCLUDES COLLECTIONS FROM 1973, 1995, AND 2014.

Owner/Manager: MARIN MWD

Occurrence No.	6	Map Index: 28958	EO Index: 30490	Element Last Seen:	2016-06-14
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2016-06-14
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2017-06-15

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.97535 / -122.64748	Accuracy:	specific area
UTM:	Zone-10 N4203139 E530961	Elevation (ft):	1400
PLSS:	T02N, R07W, Sec. 32, NE (M)	Acres:	58.0

Location: SOUTHEAST SLOPE OF PINE MOUNTAIN AND ALONG PINE MOUNTAIN TRUCK ROAD, BETWEEN PINE MOUNTAIN AND HAPPERSBERGER POINT.

Detailed Location: 5 POLYGONS MAPPED ACCORDING TO A 1990 PATTERSON MAP, 1994 FOLLETTE MAP, 2007 DIGITAL DATA, AND 2016 POINT AND POLYGON INFORMATION FROM CALFLORA.

Ecological: SERPENTINE RIDGE TOP, SLOPING DOWN TOWARDS THE EAST. OPEN CHAPARRAL WITH CEANOTHUS JEPSONII, QUERCUS DURATA, ERIODICTYON CALIFORNICUM, ADENOSTOMA FASCICULATUM, CALYSTEGIA COLLINA, AND CLAYTONIA GYPSOPHYLLOIDES.

General: EASTERNMOST POLYGON: SEEN IN 1988-1990, SEVERAL HUNDRED PLANTS SEEN IN 1994. WESTERNMOST POLYGON: SEEN IN 1988-1990 AND 2005. MIDDE POLYGONS: 2100+ PLANTS OBSERVED IN 2016. INCLUDES FORMER OCCURRENCE #7.

Owner/Manager: MARIN MWD



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Occurrence No.	8	Map Index: A4945	EO Index: 30488	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2017-06-06
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.98614 / -122.6347		Accuracy:	specific area	
UTM:	Zone-10 N4204341 E532078		Elevation (ft):	1080	
PLSS:	T02N, R07W, Sec. 28, NE (M)		Acres:	5.0	
Location:	ALONG ROAD ON RIDGE BETWEEN UPPER SAN ANSELMO CREEK AND CASCADE CREEK, 0.7 MILE SOUTHWEST OF WHITE HILL.				
Detailed Location:	MAPPED IN THE SW 1/4 OF THE NE 1/4 OF SECTION 28.				
Ecological:	GROWING ON SERPENTINE SOILS.				
General:	UNKNOWN NUMBER OF PLANTS SEEN DURING 1988-1990 SURVEYS. ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON FOR THE MARIN WATER DISTRICT.				
Owner/Manager:	MARIN MWD				

Occurrence No.	9	Map Index: 28953	EO Index: 30487	Element Last Seen:	1990-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	1997-03-12
Quad Summary:	Bolinás (3712286)				
County Summary:	Marin				
Lat/Long:	37.98553 / -122.64949		Accuracy:	specific area	
UTM:	Zone-10 N4204267 E530779		Elevation (ft):	1450	
PLSS:	T02N, R07W, Sec. 29 (M)		Acres:	10.1	
Location:	PINE MOUNTAIN TRUCK TRAIL, ABOUT 0.6 MILE NORTH OF PINE MOUNTAIN.				
Detailed Location:	MAPPED ON THE WEST SIDE OF THE ROAD, JUST NORTH OF CASCADE CANYON FIRE ROAD.				
Ecological:	GROWING ON SERPENTINE SOILS.				
General:	UNKNOWN NUMBER OF PLANTS SEEN DURING 1988-1990 SURVEYS. ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON FOR THE MARIN WATER DISTRICT.				
Owner/Manager:	MARIN MWD				



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Occurrence No.	10	Map Index: 28952	EO Index: 30486	Element Last Seen: 2016-06-22
Occ. Rank:	Excellent		Presence: Presumed Extant	Site Last Seen: 2016-06-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2017-06-06

Quad Summary: Bolinas (3712286), San Geronimo (3812216)

County Summary: Marin

Lat/Long:	37.9968 / -122.65676	Accuracy:	specific area
UTM:	Zone-10 N4205516 E530137	Elevation (ft):	1300
PLSS:	T02N, R07W, Sec. 20 (M)	Acres:	52.0

Location: NORTHEAST OF KENT LAKE AND EAST OF GREEN HILL BETWEEN PINE MOUNTAIN TRUCK TRAIL AND CARSON CREEK.

Detailed Location: 7 POLYGONS MAPPED BY CNDDDB ACCORDING TO A 1990 PATTERSON MAP, 2014 GREENBERGER COORDINATES, AND 2016 PETERSON COORDINATES. 2016 REPORT INDICATES THAT THERE ARE ADDITIONAL COLONIES OUTSIDE OF MAPPED OCCURRENCE.

Ecological: OPENINGS IN SERPENTINE CHAPARRAL GROWING WITH MINUARTIA DOUGLASII, TOXICODENDRON DIVERSILOBUM, PICKERINGIA MONTANA VAR. MONTANA, AND HESPEROCYPARIS SARGENTII.

General: UNKNOWN NUMBER OF PLANTS SEEN DURING 1988-1990 SURVEYS AND IN 2014. 663 PLANTS OBSERVED IN SE PORTION OF SITE IN 2016. A 2015 SMITH PHOTO FROM "BIG CARSON CANYON" IS ALSO ATTRIBUTED TO THIS SITE.

Owner/Manager: MARIN MWD

<i>Ceanothus masonii</i>		Element Code: PDRHA04200
Mason's ceanothus		
Listing Status:	Federal: None	CNDDDB Element Ranks: Global: G1
	State: Rare	State: S1
	Other: Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture	
Habitat:	General: CHAPARRAL.	
	Micro: SERPENTINE RIDGES OR SLOPES IN CHAPARRAL OR TRANSITION ZONE. 180-460 M.	

Occurrence No.	1	Map Index: 08283	EO Index: 13810	Element Last Seen: 2009-05-08
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen: 2009-05-08
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2014-12-16

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94669 / -122.66686	Accuracy:	specific area
UTM:	Zone-10 N4199952 E529269	Elevation (ft):	1500
PLSS:	T01N, R07W, Sec. 06, S (M)	Acres:	70.0

Location: SE END OF BOLINAS RIDGE. ALONG FIREBREAK NORTH OF JUNCTION OF RIDGECREST BLVD AND FAIRFAX-BOLINAS ROAD.

Detailed Location: MAPPED BY CNDDDB AS 2 POLYGONS ACCORDING TO MAPS AND GGNRA DIGITAL DATA. A 1985 PARKER MAP SHOWS THAT SPORADIC INDIVIDUALS CONTINUE TO MCCURDY TRAIL BUT MAP DETAIL IS VERY VAGUE; THOROUGH SURVEYS NEEDED IN THIS AREA.

Ecological: DRY RIDGECREST IN CHAPARRAL. ASSOCIATED WITH CEANOTHUS GLORIOSUS VAR. EXALTATUS; SOME INDIVIDUALS APPEAR INTERMEDIATE. SITE LAST BURNED IN 1945. ASSOCIATED WITH ARCTOSTAPHYLOS GLANDULOSA, A. NUMMULARIA, CEANOTHUS THYRSIFLORUS, ETC.

General: 50+ PLANTS IN 1984. IN 1986, 3 MAIN POPULATIONS WITH 20-30 PLANTS EACH & SCATTERED POPS IN BETWEEN. UNKNOWN NUMBER OBSERVED IN 1990. 6-8 PLANTS SEEN IN 1995. 12 SEEN IN 2000 BY FOLLETTE. 5 PLANTS IN SOUTH POLYGON IN 2009.

Owner/Manager: NPS-GGNRA, MARIN MWD



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Occurrence No.	3	Map Index: 26246	EO Index: 1665	Element Last Seen: 1994-08-17
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen: 1994-08-17
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2014-12-16

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96401 / -122.63159	Accuracy:	80 meters
UTM:	Zone-10 N4201885 E532361	Elevation (ft):	780
PLSS:	T02N, R07W, Sec. 33, SE (M)	Acres:	0.0

Location: LIBERTY GULCH, ALONG OLD SLED TRAIL.

Detailed Location: AT TOP OF ROAD CUT ABOVE BOLINAS-FAIRFIELD ROAD AT ROAD MARKER 5.83 MI.

Ecological: S-FACING SLOPE ABOVE CREEK. WITH QUERCUS DURATA, Q. WISLIZENI FRUTESCENS, ADENOSTOMA FASCICULATUM, ARCTOSTAPHYLOS MONTANA, PICKERINGIA MONTANA, HETEROMELES ARBUTIFOLIA, IRIS DOUGLASIANA MAJOR, AND CEANOTHUS RAMULOSUS.

General: 1 PLANT SEEN IN 1991; FURTHER SEARCHES WILL POSSIBLY DISCOVER OTHER INDIVIDUALS. UNKNOWN NUMBER IN 1992. ONE PLANT SEEN IN 1994 DURING SURVEY FOR LESSINGIA MICRADENIA VAR. MICRADENIA.

Owner/Manager: MARIN MWD

Occurrence No.	7	Map Index: 52868	EO Index: 52868	Element Last Seen: XXXX-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: XXXX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2003-10-14

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.96709 / -122.69557	Accuracy:	specific area
UTM:	Zone-10 N4202208 E526739	Elevation (ft):	1400
PLSS:	T02N, R08W, Sec. 36 (M)	Acres:	0.7

Location: BOLINAS RIDGE, ALONG MCCURDY TRAIL 0.1 MILE WEST OF BOLINAS RIDGE FIRE ROAD, WEST OF KENT LAKE.

Detailed Location: MAPPED ALONG BOTH SIDES OF THE TRAIL.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS ARCVIEW SHAPEFILE FROM GGNRA; UNCLEAR WHEN SURVEY TOOK PLACE. NEEDS FIELDWORK.

Owner/Manager: NPS-GGNRA



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Occurrence No.	8	Map Index:	94709	EO Index:	95821	Element Last Seen:	2009-04-09
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:		2009-04-09	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-12-23	
Quad Summary:	Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.92943 / -122.64535	Accuracy:	specific area				
UTM:	Zone-10 N4198045 E531166	Elevation (ft):	1500				
PLSS:	T01N, R07W, Sec. 08, SE (M)	Acres:	5.0				
Location:	VICINITY OF MCKINNAN GULCH MINE ON BOLINAS RIDGE.						
Detailed Location:	MAPPED BY CNDDDB AS 3 POLYGONS ACCORDING TO 2002 GGNRA DIGITAL DATA, MOSTLY IN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 8 EXTENDING SLIGHTLY INTO THE NE 1/4 OF THE NE 1/4 OF SECTION 17.						
Ecological:	CHAPARRAL ON WEST SLOPE OF RIDGE WITH ROCKY SOIL DERIVED FROM FRANCISCAN COMPLEX MELANGE PARENT MATERIAL. ASSOCIATED WITH BACCHARIS PILULARIS, CEANOTHUS THYRSIFLORUS, QUERCUS AGRIFOLIA, ADENOSTOMA FASCICULATUM, Q. WISLIZENI, ETC.						
General:	3 PLANTS IN 2002 (POSSIBLY MORE BASED ON SIZE OF POLYGONS PROVIDED). GREATER THAN 50 PLANTS OBSERVED IN 2009.						
Owner/Manager:	NPS-GGNRA						
Occurrence No.	9	Map Index:	94710	EO Index:	95822	Element Last Seen:	2002-06-17
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2002-06-17	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-12-16	
Quad Summary:	Bolinas (3712286)						
County Summary:	Marin						
Lat/Long:	37.93441 / -122.65241	Accuracy:	specific area				
UTM:	Zone-10 N4198594 E530544	Elevation (ft):	1500				
PLSS:	T01N, R07W, Sec. 08, SE (M)	Acres:	2.0				
Location:	APPROXIMATELY 0.5 AIR MILE NW OF MCKINNAN GULCH MINE ON BOLINAS RIDGE.						
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO 2002 GGNRA DIGITAL DATA, IN THE NW 1/4 OF THE SE 1/4 OF SECTION 8.						
Ecological:							
General:	SITE BASED ON DIGITAL DATA SUBMITTED BY GGNRA; 2 PLANTS OBSERVED IN 2002.						
Owner/Manager:	NPS-GGNRA						



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Horkelia tenuiloba		Element Code: PDROS0W0E0	
thin-lobed horkelia			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: BROADLEAFED UPLAND FOREST, CHAPARRAL, VALLEY AND FOOTHILL GRASSLAND.		
	Micro: SANDY SOILS; MESIC OPENINGS. 45-640 M.		

Occurrence No.	5	Map Index:	28955	EO Index:	30491	Element Last Seen:	1990-08-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1990-08-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1997-03-18	
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.97640 / -122.63951		Accuracy:	non-specific area			
UTM:	Zone-10 N4203257 E531660		Elevation (ft):	1300			
PLSS:	T02N, R07W, Sec. 33 (M)		Acres:	19.5			
Location:	ABOUT 0.7 MILE ESE OF PINE MOUNTAIN, ALONG PINE MOUNTAIN TRUCK TRAIL.						
Detailed Location:	TWO COLONIES MAPPED ALONG THE ROAD, JUST NORTH OF PINE MOUNTAIN TUNNEL.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1990 REPORT BY PATTERSON "SENSITIVE PLANT SURVEY OF THE MARIN MUNICIPAL WATER DISTRICT."						
Owner/Manager:	MARIN MWD						



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<i>Collinsia corymbosa</i>		Element Code: PDSCR0H060	
round-headed collinsia			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G1
	State: None		State: S1
	Other: Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: COASTAL DUNES.		
	Micro: 0-30 M.		

Occurrence No.	12	Map Index:	08274	EO Index:	104480	Element Last Seen:	1906-05-30
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1906-05-30	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2016-12-06		

Quad Summary: Bolinas (3712286)
County Summary: Marin

Lat/Long:	37.92075 / -122.67665	Accuracy:	1 mile
UTM:	Zone-10 N4197071 E528419	Elevation (ft):	
PLSS:	T01N, R07W, Sec. 18 (M)	Acres:	0.0

Location: BOLINAS BAY.
Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS BEST GUESS AROUND THE VICINITY OF BOLINAS LAGOON.
Ecological:
General: SITE BASED ON AN 1849 BIGELOW COLLECTION. 1906 EASTWOOD COLLECTION FROM PT REYES IS ALSO ATTRIBUTED HERE. ID NEEDS CONFIRMATION; PLANTS FROM MARIN CO HAVE BEEN CALLED C. BARTSIIIFOLIA VAR. HIRSUTA BUT THIS VARIETY IS NO LONGER RECOGNIZED.
Owner/Manager: UNKNOWN

<i>Chloropyron maritimum ssp. palustre</i>		Element Code: PDSCR0J0C3	
Point Reyes salty bird's-beak			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G4?T2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: COASTAL SALT MARSH.		
	Micro: USUALLY IN COASTAL SALT MARSH WITH SALICORNIA, DISTICHLIS, JAUMEA, SPARTINA, ETC. 0-115 M.		



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Occurrence No.	1	Map Index: 08271	EO Index: 17558	Element Last Seen:	2015-08-XX
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2015-08-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-09-18
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.91265 / -122.67788		Accuracy:	specific area	
UTM:	Zone-10 N4196172 E528314		Elevation (ft):	5	
PLSS:	T99X, R99X, Sec. UN (X)		Acres:	1.5	
Location:	NORTH SIDE OF KENT ISLAND, ABOUT 2.7 MILES ENE OF BOLINAS POINT, BOLINAS LAGOON.				
Detailed Location:	INNER EDGE OF MARSH, ABOUT 100 FEET WEST OF LONE MONTEREY CYPRESS.				
Ecological:	AT INNER EDGE OF SALTMARSH, WITH LIMONIUM CALIFORNICUM, PLANTAGO JUNCOIDES, FRANKENIA SALINA, DISTICHLIS SPICATA, AND SALICORNIA VIRGINICA.				
General:	MORE THAN 100 PLANTS IN 1984. POPULATION WAS IN GOOD CONDITION DURING AUGUST 2015 SURVEYS.				
Owner/Manager:	MRN COUNTY				
Occurrence No.	5	Map Index: B3986	EO Index: 17554	Element Last Seen:	2019-09-20
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2019-09-20
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-11-06
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.90307 / -122.64967		Accuracy:	specific area	
UTM:	Zone-10 N4195118 E530798		Elevation (ft):	6	
PLSS:	T01N, R07W, Sec. 20, SE (M)		Acres:	1.0	
Location:	STINSON BEACH; ON THE NORTH SIDE OF CALLE DEL ARROYO JUST SOUTH OF THE EASTERN ARM OF BOLINAS LAGOON.				
Detailed Location:	MAPPED ACCORDING TO 2019 STICKROD COORDINATES FROM INATURALIST.				
Ecological:					
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2019. TWO 1945 HOWELL COLLECTIONS FROM STINSON BEACH ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.				
Owner/Manager:	MRN COUNTY OPEN SPACE DISTRICT				



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Occurrence No.	33	Map Index: 08252	EO Index: 17535	Element Last Seen:	2015-08-11
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen:	2015-08-11
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-11-15
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.92253 / -122.69013		Accuracy:	non-specific area	
UTM:	Zone-10 N4197265 E527234		Elevation (ft):	6	
PLSS:	T01N, R08W, Sec. 13, W (M)		Acres:	22.0	
Location:	BOLINAS LAGOON, NORTH AND SOUTH OF PINE GULCH CREEK.				
Detailed Location:	2 POLYGONS MAPPED BY CNDDDB. SOUTHERN POLYGON IS BASED ON 2015 BARTOSH COORDINATES. NORTHERN POLYGON IS BASED ON 1977 DAVY LOCATION DESCRIPTION: "300 YDS N OF PINE GULCH CREEK, IN SALICORNIA MARSH."				
Ecological:	GROWING IN TRANSITION ZONE BETWEEN GRINDELIA STRICTA VAR. ANGUSTIFOLIUS/JUNCUS BALTICUS AND SALICORNIA DEPRESSA. SOILS ARE SATURATED BUT NOT EXPECTING TO RECIEVE SURFACE TIDAL FLOWS.				
General:	NORTHERN POLYGON: 10 PLANTS SEEN IN 1977, NO PLANTS FOUND IN THIS AREA IN 2015. SOUTHERN POLYGON: 74 PLANTS SEEN IN 2015.				
Owner/Manager:	MRN COUNTY OPEN SPACE				
Occurrence No.	71	Map Index: 50174	EO Index: 50174	Element Last Seen:	2002-07-23
Occ. Rank:	Poor		Presence: Presumed Extant	Site Last Seen:	2015-08-11
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-09-23
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.91888 / -122.67057		Accuracy:	80 meters	
UTM:	Zone-10 N4196866 E528954		Elevation (ft):	0	
PLSS:	T01N, R07W, Sec. 18, S (M)		Acres:	0.0	
Location:	MOUTH OF MORSES GULCH, JUST WEST OF HIGHWAY 1, ABOUT 1 MILE SOUTH OF AUDUBON CANYON RANCH, BOLINAS LAGOON.				
Detailed Location:	ABOUT 3 METERS SOUTH OF DRAINAGE CHANNEL, IN SALT MARSH ABOUT 20 METERS WEST OF WILLOWS AND 40 METERS EAST OF SHORELINE.				
Ecological:	DISTICHLIS SALT MARSH, WITH DISTICHLIS SPICATA, GRINDELIA STRICTA VAR. ANGUSTIFOLIA, SALICORNIA MARITIMA, AND LIMONIUM CALIFORNICUM.				
General:	3 PLANTS OBSERVED IN 2002. NO PLANTS FOUND IN 2015; PRESENCE OF CARPOBROTUS EDULIS, SALIX SP., AND JUNCUS BALTICUS THATCH SEEM TO BE POTENTIAL CAUSES OF THERE BEING NO INDIVIDUALS. VIABLE SEED BANK MAY STILL BE PRESENT.				
Owner/Manager:	NPS-GGNRA				



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Occurrence No.	84	Map Index: B4010	EO Index: 116926	Element Last Seen:	2019-08-25
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2019-08-25
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-09-23

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.93388 / -122.69647	Accuracy:	80 meters
UTM:	Zone-10 N4198523 E526673	Elevation (ft):	6
PLSS:	T01N, R08W, Sec. 12, SW (M)	Acres:	5.0

Location: NORTHERN END OF BOLINAS LAGOON, SOUTH SIDE OF HIGHWAY 1 AT MOUTH OF WILKINS GULCH.

Detailed Location: MAPPED ACCORDING TO 2019 KARLE COORDINATES, IN THE NW 1/4 OF THE SW 1/4 OF SECTION 12.

Ecological:

General: UNKNOWN NUMBER OF PLANTS OBSERVED IN 2019.

Owner/Manager: MRN COUNTY OPEN SPACE

Occurrence No.	90	Map Index: B4367	EO Index: 117297	Element Last Seen:	2019-08-25
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	2019-08-25
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2019-11-07

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.91167 / -122.66125	Accuracy:	80 meters
UTM:	Zone-10 N4196068 E529777	Elevation (ft):	8
PLSS:	T01N, R07W, Sec. 20, NW (M)	Acres:	5.0

Location: WEST SIDE OF HIGHWAY 1, ABOUT 0.7 MILE EAST OF THE EASTERN END OF KENT ISLAND, JUST NORTHWEST OF STINSON BEACH.

Detailed Location: MAPPED ACCORDING TO 2019 KARLE COORDINATES, IN THE NW 1/4 OF THE NW 1/4 OF SECTION 20.

Ecological: SALT MARSHES.

General: 11-50 PLANTS OBSERVED IN 2019.

Owner/Manager: NPS-GGNRA

<i>Dirca occidentalis</i>		Element Code: PDTHY03010	
western leatherwood			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G2
	State: None		State: S2
Other:	Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General:	BROADLEAFED UPLAND FOREST, CHAPARRAL, CLOSED-CONE CONIFEROUS FOREST, CISMONTANE WOODLAND, NORTH COAST CONIFEROUS FOREST, RIPARIAN FOREST, RIPARIAN WOODLAND.	
	Micro:	ON BRUSHY SLOPES, MESIC SITES; MOSTLY IN MIXED EVERGREEN AND FOOTHILL WOODLAND COMMUNITIES. 20-640 M.	



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Occurrence No.	26	Map Index: 28675	EO Index: 29989	Element Last Seen: 2020-02-22
Occ. Rank:	Good		Presence: Presumed Extant	Site Last Seen: 2020-02-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2021-04-12

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.94193 / -122.64707	Accuracy:	specific area
UTM:	Zone-10 N4199431 E531011	Elevation (ft):	500
PLSS:	T01N, R07W, Sec. 8, NE (M)	Acres:	12.0

Location: NE SLOPE OF BOLINAS RIDGE WEST OF ALPINE LAKE, BOTH SIDES OF LAGUNITAS CREEK ABOUT 0.45 MILE WEST OF ALPINE DAM.

Detailed Location: MAPPED AS 3 POLYGONS BY CNDDDB ACCORDING TO 2019 DIGITAL DATA PROVIDED BY MMWD AND 2016-2020 COORDINATES.

Ecological: FOREST EDGE. ALSO ON STEEP SLOPES IN PSEUDOTSUGA MENZIESII FOREST WITH UMBELLULARIA CALIFORNICA, QUERCUS CHRYSOLEPIS, AND AESCULUS CALIFORNICUS.

General: A FEW DOZEN PLANTS OBSERVED IN WEST POLYGON IN 1988-1990. OVER 100 PLANTS TOTAL IN E & W POLYGONS IN 2012. W POLYGON: 15 IN 2015, 11-50 IN 2018. MIDDLE POLYGON: 1 PLANT IN 2016. E POLYGON: 20 IN 2015, 11-50 IN 2017, 22-100 IN 2020.

Owner/Manager: MARIN MWD

Occurrence No.	29	Map Index: 08246	EO Index: 30012	Element Last Seen: 1920-06-11
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1920-06-11
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2014-07-29

Quad Summary: Bolinas (3712286), San Geronimo (3812216)

County Summary: Marin

Lat/Long:	38.01047 / -122.70166	Accuracy:	1 mile
UTM:	Zone-10 N4207019 E526189	Elevation (ft):	400
PLSS:	T02N, R08W, Sec. 14 (M)	Acres:	0.0

Location: LAGUNITAS.

Detailed Location:

Ecological:

General: ONLY SOURCES OF INFORMATION FOR THIS SITE ARE A 1915 COLLECTION BY GILBERT, A 1918 COLLECTION BY MERRIAM, AND A 1920 COLLECTION BY JACKSON. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



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Occurrence No.	96	Map Index:	B7196	EO Index:	120266	Element Last Seen:	2016-02-18
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2016-02-18	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2021-04-12	
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.9606 / -122.66412			Accuracy:	specific area		
UTM:	Zone-10 N4201496 E529505			Elevation (ft):	500		
PLSS:	T02N, R07W, Sec. 31, SE (M)			Acres:	8.0		
Location:	SHORELINE OF KENT LAKE, NEAR SOUTH END 1.6 AIR MILES NW OF OAT HILL.						
Detailed Location:	SOUTH OF POWERLINES ON PENINSULA/ACROSS LAKE NEAR GRASSY ROCKSLOPE. MAPPED AS 2 POLYGONS BY CNDDDB BASED ON DIGITAL DATA PROVIDED BY MMWD, NEAR THE COMMON CORNER OF SECTIONS 5, 6, 31 & 32.						
Ecological:	GREENSTONE ROCK OUTCROPS. SUNNY, ROCKY OPENINGS.						
General:	11-100 PLANTS ESTIMATED IN EACH POLYGON IN 2010. N POLYGON REVISITED IN 2016.						
Owner/Manager:	MMWD						

Carex lyngbyei		Element Code: PMCYP037Y0					
Lyngbye's sedge							
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5		
	State:	None		State:	S3		
	Other:	Rare Plant Rank - 2B.2, IUCN_LC-Least Concern					
Habitat:	General:	MARSHES AND SWAMPS (BRACKISH OR FRESHWATER).					
	Micro:	0-200 M.					

Occurrence No.	16	Map Index:	08311	EO Index:	45819	Element Last Seen:	1927-04-24
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2016-05-17	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2021-02-09	
Quad Summary:	Bolinás (3712286)						
County Summary:	Marin						
Lat/Long:	37.90190 / -122.64620			Accuracy:	1 mile		
UTM:	Zone-10 N4194990 E531103			Elevation (ft):	100		
PLSS:	T01N, R07W, Sec. 29 (M)			Acres:	0.0		
Location:	STINSON BEACH.						
Detailed Location:							
Ecological:							
General:	SITE BASED ON A 1927 COLLECTION BY WOLF. TIDALLY INFLUENCED MARSH HABITAT WAS SURVEYED ON THE WEST AND EAST SHORES OF BOLINAS LAGOON BUT NO CAREX LYNGBYEI INDIVIDUALS WERE OBSERVED IN 2016.						
Owner/Manager:	UNKNOWN						

Fritillaria lanceolata var. tristulis		Element Code: PMLIL0V0P1					
Marin checker lily							
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5T2		
	State:	None		State:	S2		
	Other:	Rare Plant Rank - 1B.1, SB_UCSC-UC Santa Cruz					
Habitat:	General:	COASTAL BLUFF SCRUB, COASTAL SCRUB, COASTAL PRAIRIE.					
	Micro:	OCCURRENCES REPORTED FROM CANYONS AND RIPARIAN AREAS AS WELL AS ROCK OUTCROPS; OFTEN ON SERPENTINE. 5-305 M.					



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Occurrence No.	1	Map Index: 28705	EO Index: 30147	Element Last Seen:	1963-03-10
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1963-03-10
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-04-01
Quad Summary:	San Rafael (3712285), Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.89324 / -122.62385		Accuracy:	non-specific area	
UTM:	Zone-10 N4194036 E533072		Elevation (ft):	600	
PLSS:	T01N, R07W, Sec. 27, SW (M)		Acres:	65.0	
Location:	1.5 MILES UP ROAD TO MOUNT TAMALPAIS FROM HIGHWAY 1.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB ALONG PANORAMIC HIGHWAY AROUND 1.5 ROAD MILES EAST OF ITS JUNCTION WITH HIGHWAY 1.				
Ecological:					
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1963 COLLECTION BY LLOYD. ORIGINAL LABEL 'F. LANCEOLATA' ANNOTATED TO 'F. AFFINIS,' NOT FURTHER ANNOTATED.				
Owner/Manager:	UNKNOWN				

Occurrence No.	2	Map Index: 08297	EO Index: 15011	Element Last Seen:	1951-04-13
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1951-04-13
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-04-01
Quad Summary:	Bolinas (3712286)				
County Summary:	Marin				
Lat/Long:	37.93879 / -122.64824		Accuracy:	non-specific area	
UTM:	Zone-10 N4199082 E530908		Elevation (ft):	1000	
PLSS:	T01N, R07W, Sec. 08, N (M)		Acres:	124.0	
Location:	ALONG BOLINAS ROAD ABOVE ALPINE DAM.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB ALONG BOLINAS ROAD BETWEEN ALPINE DAM AND RIDGELINE OF BOLINAS RIDGE.				
Ecological:	ON ROCK WITH ROMANZOFFIA.				
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1951 COLLECTION BY BACIGALUPI AND BELL. ORIGINAL LABEL ANNOTATED 'F. LANCEOLATA' FURTHER ANNOTATED TO 'F. AFFINIS,' NOT FURTHER ANNOTATED.				
Owner/Manager:	UNKNOWN				



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Occurrence No.	16	Map Index: 42524	EO Index: 42524	Element Last Seen:	1996-03-22
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	1996-03-22
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2000-03-13

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.90245 / -122.72178	Accuracy:	specific area
UTM:	Zone-10 N4195028 E524459	Elevation (ft):	100
PLSS:	T01N, R08W, Sec. 22 (M)	Acres:	1.8

Location: BOLINAS POINT, ABOUT 1.2 MILES SOUTH OF BOLINAS MILITARY RESERVATION, SOUTH OF POINT REYES NATIONAL SEASHORE.

Detailed Location: ABOUT 700 METERS SOUTHEAST OF "LOOP" END OF OLD ROAD THAT RUNS FROM MESA ROAD ENTRANCE OF COMMONWEALTH AND MCI TOWARD SW AND OCEAN BLUFFS.

Ecological: NON-NATIVE GRASSES. GROWING WITH CAMISSONIA OVATA, RANUNCULUS CALIFORNICUS, IRIS DOUGLASIANA, PLANTAGO LANCEOLATA, FRITILLARIA AFFINIS VAR. AFFINIS AND SCATTERED BACCHARIS PILULARIS. 10-20 % SLOPE.

General: 2 FLOWERING PLANTS OBSERVED IN 1996. MANY VEGETATIVE PLANTS PRESENT, BUT UNABLE TO DISTINGUISH VAR. AFFINIS FROM VAR. TRISTULIS.

Owner/Manager: NPS-POINT REYES NS

Occurrence No.	18	Map Index: 52612	EO Index: 52612	Element Last Seen:	2001-04-05
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen:	2001-04-05
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2003-09-23

Quad Summary: Bolinas (3712286)

County Summary: Marin

Lat/Long:	37.98181 / -122.73558	Accuracy:	specific area
UTM:	Zone-10 N4203829 E523220	Elevation (ft):	550
PLSS:	T02N, R08W, Sec. 28, SE (M)	Acres:	0.2

Location: SAN ANDREAS RIFT, EAST OF OLEMA CREEK, APPROXIMATELY 0.2 AIR MILE NORTH OF BENCHMARK 367.

Detailed Location: SITE MAPPED FROM UTM COORDINATES & CORRESPONDING SHAPEFILE PROVIDED. VERY SMALL COLONY LOCATED IN THE EASTERN EDGE OF THE NE 1/4 OF THE SE 1/4 OF SECTION 28.

Ecological: GRASSLAND ON EDGE OF DOUG FIR FOREST. SMALL DOUG FIR SAPLINGS ARE "INVADING". FERNS & IRIS ARE ALSO PRESENT. VERY SHORT GRASSES FROM "MOWING" BY CATTLE.

General: 3 INDIVIDUALS OBSERVED IN 2001.

Owner/Manager: NPS-GGNRA



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<i>Alopecurus aequalis</i> var. <i>sonomensis</i>		Element Code: PMPOA07012	
Sonoma alopecurus			
Listing Status:	Federal: Endangered	CNDDB Element Ranks:	Global: G5T1
	State: None		State: S1
	Other: Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General: FRESHWATER MARSHES AND SWAMPS, RIPARIAN SCRUB.		
	Micro: WET AREAS, MARSHES, AND RIPARIAN BANKS, WITH OTHER WETLAND SPECIES. 3-360 M.		
Occurrence No.	14	Map Index:	08198
		EO Index:	12847
Occ. Rank:	None	Presence:	Extirpated
Occ. Type:	Natural/Native occurrence	Trend:	Decreasing
		Element Last Seen:	1991-07-06
		Site Last Seen:	2006-XX-XX
		Record Last Updated:	2020-09-17
Quad Summary:	Bolinás (3712286)		
County Summary:	Marin		
Lat/Long:	37.92612 / -122.72949		Accuracy: 1/5 mile
UTM:	Zone-10 N4197652 E523773		Elevation (ft): 300
PLSS:	T01N, R08W, Sec. 15, NW (M)		Acres: 0.0
Location:	MESA ROAD ABOUT 3.2 MILES FROM JUNCTION WITH OLEMA-BOLINAS ROAD, BOLINAS.		
Detailed Location:	ALONG BOTH SIDES OF THE ROAD IN DRAINAGE NEXT TO COAST GUARD BUILDING. MAPPED AS BEST GUESS BY CNDDDB TO ENCOMPASS VARIOUS MAPS AND LOCATION DESCRIPTIONS.		
Ecological:	RIPARIAN STREAMBED COMMUNITY ON WET BANKS. ASSOCIATED WITH OENANTHE SARMENTOSA, CYPERUS, JUNCUS, SALIX, TYPHA LATIFOLIA, GLYCERIA, RORIPPA NASTURTIUM VAR. AQUATICUM, POLYPOGON MONSPELIENSIS, LYTHRUM HYSSOPIFOLIUM, VERONICA, AND HOLCUS.		
General:	<50 PLANTS IN 1983, 34 IN 1984, 75-100 IN 1987, 1 IN 1988, 0 IN 1990, 14 PLANTS IN 1991, 0 IN 1996, 1999, 2000, 2003, & 2006. AREA ABOVE ROAD FENCED FROM 1986-1990. FENCE OPENED IN 1991 TO REINTRODUCE DISTURBANCE, BUT NO PLANTS FOUND SINCE.		
Owner/Manager:	NPS-POINT REYES NS		



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<i>Pleuropogon hooverianus</i>		Element Code: PMPOA4Y070	
North Coast semaphore grass			
Listing Status:	Federal: None	CNDDB Element Ranks:	Global: G2
	State: Threatened		State: S2
Other:	Rare Plant Rank - 1B.1, BLM_S-Sensitive, SB_BerrySB-Berry Seed Bank, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		
Habitat:	General:	BROADLEAFED UPLAND FOREST, MEADOWS AND SEEPS, NORTH COAST CONIFEROUS FOREST.	
	Micro:	WET GRASSY, USUALLY SHADY AREAS, SOMETIMES FRESHWATER MARSH; ASSOCIATED WITH FOREST ENVIRONMENTS. 45-1160 M.	

Occurrence No.	20	Map Index:	08246	EO Index:	44819	Element Last Seen:	1916-05-07
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2016-05-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2017-05-09	
Quad Summary:	Bolinas (3712286), San Geronimo (3812216)						
County Summary:	Marin						
Lat/Long:	38.01047 / -122.70166		Accuracy:	1 mile			
UTM:	Zone-10 N4207019 E526189		Elevation (ft):				
PLSS:	T02N, R08W, Sec. 14 (M)		Acres:	0.0			
Location:	LAGUNITAS.						
Detailed Location:	EXACT LOCATION UNKNOWN, MAPPED IN THE GENERAL VICINITY OF LAGUNITAS.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1916 SMITH COLLECTION. NEEDS FIELDWORK. ROYS REDWOODS PRESERVE (JUST EAST OF LAGUNITAS) SEARCHED IN 2016; NO PLANTS FOUND.						
Owner/Manager:	UNKNOWN						