

April 2010



# The Bay Leaf

California Native Plant Society • East Bay Chapter  
Alameda & Contra Costa Counties

[www.ebcnps.org](http://www.ebcnps.org)

[www.groups.google.com/group/ebcnps](http://www.groups.google.com/group/ebcnps)

## MEMBERSHIP MEETING



Wawona Tree (*Sequoiadendron giganteum*) in Yosemite National Park. From an 1887 painting.

native outliers can be found beyond that edge, and those not very far north of it. Many ask why they don't continue beyond this northern edge.

The giant sequoias are a bit different. Most of the 70-some named groves occur near each other in the southern Sierra. Only eight distinct and widely separated groves occur in the central Sierra, and none occur in the northern Sierra. Some folks also wonder about that.

Join Bill Libby, our speaker this month, to consider two critical things: What are the circumstances in which redwoods and sequoias can become established, and what might be the circumstances that determine whether they can persist for centuries or even millennia?

Dr. Libby has served on the faculty of the University of California at Berkeley (UCB) for 32 years, mostly as Professor of Forestry and Genetics. His is a founding member and first chair of UCB's Conservation of Natural Resources curriculum. Currently, he is Professor Emeritus at UCB and a consultant (with Zobel Forestry Associates) on forest genetics, clonal forestry and genetic conservation. He is also a director of

**Redwoods and Giant Sequoias: Why Are They Not Where They Are Not?**

Speaker: **William J. Libby, Ph.D.**

**Wednesday, April 28, 7:30 pm**

Location: Garden Room, Orinda Public Library (directions below)

Many people who visit and observe the native coast redwoods notice they tend to get larger and perhaps better as one goes north through Humboldt and Del Norte counties. Then, a few miles into Oregon, these wonderful trees suddenly stop. Only a very few native

Save the Redwoods League. Dr. Libby has authored four books and over 200 publications on dendrology, genetics, vegetative propagation, clonal forestry, genetic conservation, ecosystem mitigation, and biodiversity. In 2009, he received the Frances H. Raymond Award from the California Board of Forestry and Fire Protection for outstanding contributions to California forestry.

East Bay CNPS membership meetings are free of charge and open to everyone. This month's meeting takes place in the Garden Room of the Orinda Public Library at 24 Orinda Way (in Orinda Village). The Garden Room is on the second floor of the building, accessible by stairs or an elevator. The Garden Room opens at 7:00 pm; the meeting begins at 7:30 pm. Please contact Sue Rosenthal, 510-496-6016 or [rosacalifornica@earthlink.net](mailto:rosacalifornica@earthlink.net), if you have any questions.

### Directions to Orinda Public Library at 24 Orinda Way

From the west, take Hwy 24 to the Orinda/Moraga exit. At the end of the off ramp, turn left on Camino Pablo (toward Orinda Village), right on Santa Maria Way (the signal after the BART station and freeway entrance), and left on Orinda Way.

From the east, take Hwy 24 to the Orinda exit. Follow the ramp to Orinda Village. Turn right on Santa Maria way (the first signal) and left on Orinda Way.

Once on Orinda Way, go 1 short block to the parking lot on the southeast side of the two-story building on your right. There is additional free parking beneath the building as well as on the street.

From BART (4 blocks): Exit the Orinda station, turn right and cross a pedestrian bridge, then cross a second pedestrian bridge on the left. Go 1 short block on the sidewalk to the third pedestrian bridge. Go 2 blocks on Orinda Way to the Orinda Library.

### Upcoming Programs

Wednesday, May 26: Holly Forbes—Conservation Adventures of the UC Botanical Garden (in the Conference Center of the UC Botanical Garden at Berkeley)

## BOTANICAL PRIORITY PROTECTION AREAS PROJECT

The lands in the East Bay Chapter's area are located at the convergence of the San Francisco Bay, the North and South Coast Ranges, the Sacramento-San Joaquin Delta, and the San Joaquin Valley.

These lands support a unique congregation of ecological conditions and native plants. Judging from historical botanical collections we can conclude that pressures from growth-based Bay Area economies have buried many of the botanical treasures of the East Bay. The collision of floristic protection and economic growth led to the formation of the Botanical Priority Protection Areas Project (BPPA), and fortified intra-chapter collaboration between the Plant Science and Conservation arms of the East Bay Chapter of the California Native Plant Society (CNPS).

In January of 2006 the Bay Area Open Space Council (BAOSC) requested that our chapter provide them a list of important botanical areas. Our botanical priorities were to be incorporated into BAOSC's Upland Habitat Goals Project, which aims to increase the acreage of protected lands and develop an increased awareness of key habitats among land management agencies and local jurisdictions. We had only one day to accomplish the difficult task of choosing between many botanically rich areas of Alameda and Contra Costa counties. At the end of the day, after a flurry of emails, fifteen areas endowed with native plant diversity that are threatened by current and potential land-use decisions were hastily identified.

This inquiry and the resulting cache of botanical areas raised another question: how can we look at these areas through a more objective lens using existing information? As a step toward providing an answer, the project began as a simple Geographic Information System (GIS) exercise. Heath Bartosh, the chapter's Rare Plant Committee Chairperson, began by mapping primarily watershed-based boundaries of each protection area.

Overall, the 15 BPPAs comprise 238,225 acres (372 square miles) in Alameda (96,932 acres) and Contra Costa (141,293 acres) counties. The BPPAs occupying the western portion of the chapter are smaller in acreage due to the urbanization that has already occurred along the bayside flatlands, which has left diminutive botanical refugia still in need of protection. In the east, vast expanses of undeveloped land containing a broader diversity of habitats and native plant species are still intact as indicated by the larger size of the BPPAs found flanking the Diablo Range.

BPPA boundaries were drawn with the intention of excluding lands previously preserved, such as Mount Diablo State Park or lands owned and managed by the East Bay Regional Park District. However, certain BPPAs include public parcels or properties with other conservation status. These are cases where land has been conserved since the creation of these boundaries or where potential management decisions have

the potential to negatively affect an area's botanical resources. Additionally, each acre within these BPPAs represents a *potential* area of high priority. Both urban and natural settings are included within these boundaries, therefore they are intended to be considered as areas warranting further scrutiny due to the abundance of nearby sensitive botanical resources supported by high quality habitat within each BPPA. Although a parcel available for preservation through fee title purchase or conservation easement may be located within the boundaries of a BPPA, this does not by default indicate that it contains sensitive botanical resources. Parcels within each BPPA should be floristically evaluated on a case-by-case basis to determine their botanical resource value before any conservation activity, land use change, or development is undertaken.

From within these boundaries an analysis was executed of readily and freely available spatial datasets such as botanical resource occurrences, substrates (soils and geology), wetlands, urbanized areas, existing protected areas, and possible threats. From these analyses each of the 15 maps includes a summary table that provides information such as the size of the area, watershed information, relevant substrate information, and botanical resource attributes.

The graphic portion of each map showcases protection areas on a 2009 aerial photograph provided by the National Agriculture Inventory Program. Certain BPPAs include areas of edaphic substrates which strongly influence plant species composition and structure. The East Bay is bestowed with significant substrates such as alkaline soils, sandy soils, and serpentinic habitats. Within a specific BPPA, edaphic substrates were spatially analyzed using Farmland Mapping and Monitoring Program (FMMP) data. The most useful component of the FMMP data locates areas of urbanization and irrigated agriculture. These aspects of the human environment, including development and alteration of vegetative cover, soil structure and hydrology, have eroded the natural habitat that native plants need. Spatially analyzing edaphic substrate data against select FMMP data shows the amount of these substrates that have been lost due to the effects of industry. For example, 17,280 acres of the alkaline soils have been mapped within all East Bay BPPAs. Of those acres, 21 percent containing alkaline soils within our BPPAs have been lost. Although sandy soils within our chapter area are restricted to Contra Costa County, at one time they represented 24,726 acres. To date, at least 33 percent of sandy soils no longer support healthy native communities of plants. Serpentine substrates manifest themselves in three of the 15 BPPAs: Cedar Mountain, Marsh Creek, and North of Mount Diablo. However, none of these habitats has been as significantly impacted as the large serpentine bodies of the Berkeley and Oakland Hills have been from residential development.

Following this initial mapping effort, the East Bay Chapter's Conservation Committee began to use this approach in draft form in key local planning efforts. Lech Naumovich,

the chapter's Conservation Analyst staff person, showcased the map set in forums such as the BAOSC's Upland Habitat Goals Project and the Green Vision Group (in association with Greenbelt Alliance), East Bay Regional Park District's Master Plan Process and local municipalities. In the near future we anticipate these BPPAs will be incorporated into the Eastern Alameda County Conservation Strategy, a regional planning effort currently being developed.

As a result of this collaboration our chapter also secured grant funding from the Tides and Rose Foundations to prepare a guidebook of these BPPAs. The guidebook includes maps of the 15 BPPAs, which appear opposite pictorial and narrative treatments. These treatments include a written contribution from a guest author, lists and photographs of sensitive botanical resources, a portrayal of the subject areas' botanical hot spots and noteworthy collection history, and a discussion of threats, opportunities, and constraints unique to the subject area. With the exception of the guest authors' contributions, the remaining text appearing in the green boxes was written by lead authors Heath Bartosh and Lech Naumovich, and Conservation Committee Chairperson Laura Baker.

As an enticement to professionals and laypeople alike, our guest authors contributed their personal impressions of these areas and explained why they are important as native plant refugia. Their contributions appear at the top of the page to provide the reader "a sense of place" relative to each BPPA. The guest authors include a broad spectrum of individuals ranging from dedicated amateur botanists, established academics, and government regulators. They were provided a list of interview questions to elicit a connection to the BPPA that would appeal to both native plant neophytes and seasoned enthusiasts. These questions were formed into a short paragraph that portrays their impressions and importance of the BPPA. Due to layout restrictions, many of the guest authors' pieces appearing in this guidebook are abridged versions. Each of the guest author's entire narratives will be published separately in coming issues of the East Bay Chapter's newsletter, the *Bay Leaf*.

Each BPPA includes a list of sensitive botanical resources that have been given listing status and comprise: one sensitive natural community; four plant species that are either state-wide or locally rare, and one historic occurrence that has not been seen for a minimum of 40 years. A section on the botanical hot spots within the BPPA is included that addresses the general locations of this list of botanical resources and colorful collection anecdotes. This list is also accompanied by photos of selected species within each BPPA.

An understanding of listing status in California and its regulatory significance is important for understanding the text below that deals with various rankings. Listing status is given for specific vegetation types and native plant species that meet a certain set of criteria. Within our chapter area we recognize three types of listing status: Sensitive Natural Communities;

Special-Status Plant Species; and Locally Rare Plant Species. These designations support our labeling of the 15 botanical areas as priorities for protection.

Typically, vegetation types that are given an elevated listing status are referred to as Sensitive Natural Communities. Sensitive Natural Communities are characterized as plant assemblages that are unique in constituent components, restricted in distribution, supported by distinctive edaphic conditions, considered locally rare, potentially support special-status plant or wildlife species and/or receive regulatory protection from municipal, county, state and/or federal entities. The California Natural Diversity Database treats a number of natural communities as rare, and these are given the highest inventory priority. Current vegetation types treated as Sensitive Natural Communities appear in the California Department of Fish and Game (CDFG) Vegetation Mapping and Classification Program's *List of California Vegetation Alliances*.

Special status plant species are those considered listed as Endangered, Threatened, or Rare by the U.S. Fish and Wildlife Service and/or by the CDFG. Regulatory statutes that have designated certain plant species as having special status include: Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), California Fish and Game Code, and the Native Plant Protection Act (NPPA) of 1977.

In addition, CNPS has developed and maintains a list of rare, threatened and endangered plants of California. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California*. The CNPS list is endorsed by the CDFG and effectively serves as its list of "candidate" plant species. The following identifies the definitions of the CNPS listings:

- List 1A: Plants presumed to be extinct in California;
- List 1B: Plants that are Rare, Threatened, or Endangered in California and elsewhere;
- List 2: Plants that are rare, Threatened, or Endangered in California, but are more numerous elsewhere;
- List 3: Plants about which more information is needed (a review list); and
- List 4: Plants of limited distribution (a watch list).

CNPS List 1B and List 2 species are considered eligible for state listing as Endangered or Threatened pursuant to the California Fish and Game Code. As part of the California Environmental Quality Act (CEQA) process, such species should be fully considered, as they meet the definition of Threatened or Endangered under the NPPA and Sections 2062 and 2067 of the California Fish and Game Code. CNPS List 3 and List 4 species are considered to be either plants about which more information is needed or are uncommon enough that their status should be regularly monitored. Such plants may be eligible or may become eligible for state listing, and CNPS and CDFG recommend that these species be evaluated for consideration during the preparation of California Envi-

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ronmental Quality Act (CEQA) documents, as some of these species may meet NPPA and CESA criteria as Threatened or Endangered.

Locally rare plant species are those considered to be: 1) at the outer limits of their known distribution; 2) a range extension; 3) a rediscovery; or 4) rare or uncommon in a local context. All of these are tracked in Alameda and Contra Costa counties by the East Bay chapter of CNPS and published in *Rare, Unusual, and Significant Plants of Alameda and Contra Costa Counties*. Through this program, the East Bay Chapter has been divided into 40 botanical regions based on vegetation, geology, habitats, soil types, climate, and other factors.

Although not regarded as special status species by the USFWS or CDFG, locally rare plants can receive regulatory protection, through CEQA's Article 9 and Guidelines §15125(a) and §15380 which state that "special emphasis should be placed on environmental resources that are rare or unique to that region." CNPS also has the stated goal of "preserving plant biodiversity on a regional and local scale." Relying on these statements the East Bay Chapter of CNPS maintains a program, started in 1991, that tracks rare, unusual, and significant plants that occur within our chapter's area.

Anthropogenic and environmental threats are a common thread to each BPPA. The inclusion of a discussion of threats, opportunities, and constraints highlights current conserva-

tion issues and conveys why these areas need protection. We hope to highlight some of the current, relevant environmental impacts facing the BPPAs, as well as introduce some of the cooperative efforts that are helping bring attention and protection to the unique botanical values of the sites.

Our chapter is keenly aware of the challenge facing us as we try to cope with the push to accommodate a growing tide of population drawn to the beauty of our unique East Bay landscape. California's most enduring but ironically tragic character flaw is that it draws many people to a place of delicate and finite natural resources. With our guidebook, we hope to provide local governments and land managers enough information to make botanically conscious land use decisions so that our beloved botanical treasure box will bend, not break, under the weight of its growing human population.

This project has been supported by funding from the Rose Foundation, the Tides Foundation, and the East Bay Chapter of CNPS.

For information on this project please contact Heath Bartosh, East Bay Chapter Rare Plant Botanist, [hbartosh@nomadecology.com](mailto:hbartosh@nomadecology.com) or Lech Naumovich, East Bay Chapter Conservation Analyst, [conservation@ebcnps.org](mailto:conservation@ebcnps.org).

*Heath Bartosh*

## RARE PLANT TREASURE HUNT

This year the Rare Plant and Education Programs have joined forces to bring us the Rare Plant Treasure Hunt (RPTH). The RPTH is a new statewide effort to update data on rare plants and their associated habitats. State-level staff will serve as facilitators to team experienced botanists with amateurs to conduct searches for historical occurrences. The RPTH designates historical occurrences as those which have not been documented in the past 20 years. The aim of this program is to get current information on rare plants and their habitats to inform conservation actions and aid planning efforts.

There are several different ways in which CNPS Chapters, local organizations, or volunteer teams can approach this project.

- Identify an area you would like to survey and request a map of its rare plant occurrences. Survey the area and update as many occurrences of as many species as you are able in that one area, while looking for new unknown populations; or
- Choose, or ask the RPTH team to help you prioritize, a specific plant or plants to search for throughout your region where there are historical occurrences. Of course you may search for new occurrences as well as historic occurrences; or

- Do it yourself, in your own way, using our special Rare Plant Treasure Hunt survey forms, and send the reports in to the California Natural Diversity Database (CNDDDB).

Within our Chapter area there are several rare plant species that have not been seen in many years. Here are a few examples of good targets to put in your sights that are relevant to our Chapter:

- Large-flowered fiddleneck (*Amsinckia grandiflora*), listed as state and federally Endangered and a CNPS List 1B.1 species, is extremely rare and it is only known from Alameda, Contra Costa, and San Joaquin Counties. It occupies grassland habitat in the eastern portion of our Chapter. It is known from Black Diamond Mines, south of Round Valley, and in Corral Hollow. The discovery of any new populations of this species would be extremely significant.
- Lemmon's jewelflower (*Caulanthus coulteri* var. *lemmonii*), is a CNPS List 1B.2 plant species which reaches the northern most expression of its range in eastern Alameda County. It too occupies grassland habitat in



the eastern portion of Alameda County. It was last collected in Corral Hollow by Alice Eastwood and John Thomas Howell in 1935.

- Bolander's water-hemlock (*Cicuta maculata* var. *bolanderi*), is a CNPS List 2.1 plants species. This plant occupies habitats that are characterized as fresh or brackish water marshes. Joseph Burt Davy was the last person to collect this species in our Chapter area near Martinez in 1900. It has also been recorded near Browns Island.
- Mount Diablo buckwheat (*Eriogonum truncatum*), is a CNPS List 1B.1 plant species. Thought to be extinct, one population of this taxon was rediscovered in 2005. This plant prefers the ecotone of chaparral and grassland communities and was known from the Mount Diablo and March Creek areas. The discovery of a new population of this plant species would also be extremely significant.
- Caper-fruited tropidocarpum (*Tropidocarpum capparidium*), is a CNPS List 1B.1 plant species that occupies grassland habitat characterized as alkaline hills. This plant was last collected in our chapter area by Galen Smith and Donald Stone in 1957 in the vicinity of Byron. Collection records also exist from the Mountain House area in Alameda County. Currently no extant populations of this plant species are known in our Chapter.

Other plant species that we need updated information for in our Chapter include:

- Santa Clara Red Ribbons (*Clarkia concinna* ssp. *automixa*)
- Diamond-petaled poppy (*Eschscholzia rhombipetalata*)
- Loma Prieta hoita (*Hoita strobilina*)
- Santa Cruz tarplant (*Holocarpha macradenia*)
- Contra Costa goldfields (*Lasthenia conjugens*)

- Oregon meconella (*Meconella oregana*)
- Oregon polemonium (*Polemonium carneum*)
- Saline clover (*Trifolium depauperatum* var. *hydrophilum*)

The RPTH staff is prepared to support you by:

- Suggesting and/or helping to prioritize an area or plants to survey
- Making and printing maps containing occurrence data
- Providing photos and key characteristics needed to help identify the rare plants you are searching for, and
- Providing logistical support and volunteer coordination of teams

In addition to information available through RPTH staff, the Consortium of California of Herbaria (<http://ucjeps.berkeley.edu/consortium/>) and the CNPS Online Inventory ([www.cnps.org/inventory/](http://www.cnps.org/inventory/)) are accessible on the internet. These sources can provide you with information on habitat, collection dates, collection locations, blooming times, relevant references, and other valuable information.

The RPTH staff would like to stress that unless you have permission from a landowner to collect a rare plant and the necessary collection permits you should not collect rare plants during your surveys. Also please do not conduct surveys on private land unless you have specific written permission from the land owner.

Anyone interested in participating should send an email to [treasurehunt@cnps.org](mailto:treasurehunt@cnps.org) detailing who and where you are, then where or what you would like to survey, and what level of experience you have. Please feel free to use the suggested plant species as your targets when contacting the RPTH team. Additional information can be found at <http://cnps.org/cnps/rareplants/>. Happy hunting!

Heath Bartosh, Rare Plant Chairperson

**The following committees need additional members:**

**Outreach:** East Bay Chapter needs a dedicated Outreach person to reach out to our membership for volunteers to cover our requested tabling events throughout the year and possibly finding other venues. Please contact Elaine: [elainejx@att.net](mailto:elainejx@att.net) or any Board member.

**Publicity:** Help get the word out about the Plant Fair with our beautiful posters. Please contact Charli: [volunteer@ebcnps.org](mailto:volunteer@ebcnps.org)

**Books and Posters:** The chapter owns hundreds of books about California native plants and related topics. Help us get these titles sold and into the hands of interested people. Contact Delia: [deliataylor@mac.com](mailto:deliataylor@mac.com), 510-527-3912.

**Membership:** We need help to boost our numbers and encourage people to renew their membership. Contact Elaine: [elainejx@att.net](mailto:elainejx@att.net) or Carol: [carolbcastro@hotmail.com](mailto:carolbcastro@hotmail.com)

## FIELD TRIPS

**Saturday, April 3, 10:00 am, Toyon Canyon at Briones Regional Park.** Gregg Weber (510-223-3310) leads this foray to a floristically rich area of Briones Regional Park. The canyon trail descends nearly 300 feet, with a 300 foot gain, but the rewards may include unusual plants in flower such as *Viburnum ellipticum*, *Eschscholzia caespitosa*, *Lomatium californicum*, *Helianthella castanea*, and *Eucrypta*, along with an abundance of more familiar plants such as coyote mint, *Wyethia*, clematis, dutchman's pipe, and osoberry. This trip will last about half a day, but more time may be allowed for extra wildflower viewing.

**Directions:** From west of the Bay hills, take 24 east and exit at Pleasant Hill Road. Go north on Pleasant Hill Road 0.5 mile and then turn left onto Reliez Valley Road. Go 4-5 miles on Reliez Valley Road to its end at the junction with Alhambra Valley Road. Ignore the entrance signs on Reliez Valley Road and continue straight on Alhambra Valley Road to the first left turn, which is Briones Road. Go 1.5 miles to the end of Briones Road and park on either side of the road. Meet Gregg at the end of Briones Road.

For the area from Pinole to Martinez, just proceed down Alhambra Valley Road and follow the directions to the end of Briones Road.

**Saturday, April 10, 9:30 am, Burma Road, at Mount Diablo State Park.** Meet at 9:30 am at the Burma Road crossing of North Gate Road in Mount Diablo State Park. We will walk Burma Road from Camel Rock to Moses Rock Spring. This route will take us along part of Long Ridge, featured in Steve Edwards 2006-2007 Wayne Roderick lecture about Mount Diablo. There are a variety of spring flowers and some uncommon plants. We will pass through woodland, grassland, and chaparral areas. There is a 1000 foot elevation gain on the way out, and downhill on the way back. The round trip is about 4 miles and will take about 4 hours. Bring lunch and water. We will not be deterred by rain and will proceed regardless of weather. Call Gregg Weber at 510-223-3310 if you have questions about this or the other Mt. Diablo field trips.

**Directions:** Take the North Gate Road entrance to Mount Diablo State Park. There is a \$10 entrance fee for cars. Continue on North Gate Road for about 2-3 miles and park at the Burma Road trail crossing.

**Saturday, April 17, 10:00 am, Warm Springs vernal pools at San Francisco Bay National Wildlife Refuge.** Come see the flower rings around some of the last intact vernal pools in the East Bay! Newcomers will enjoy learning about the unique features of a vernal pool grassland, and visitors from past years can observe the pools in a good rain year. Participants will see endangered Contra Costa goldfields (*Lasthenia conjugens*), as well as *Downingia pulchella*, several *Plagiobothrys* (popcorn flowers), and other native vernal pool and upland

species. RSVP by calling Ivette Loredo at 510-792-4275 ext. 134 or by e-mail to Ivette\_Loredo@fws.gov. The tour is limited to approximately 20 people due to the sensitivity of the vernal pool ecosystem.

Refuge Unit Manager Ivette Loredo will lead a tour of the Warm Springs Units of the Don Edwards San Francisco Bay National Wildlife Refuge. The walking tour will last about an hour and a half. The total walking distance will not exceed one mile, but the terrain is uneven. Please wear sturdy shoes and dress according to the weather. Heavy rain will cancel.

**Directions:** We will meet off Cushing Blvd. in Fremont. Take 880 to the Fremont Blvd./Cushing Parkway Exit (Exit 13B) toward Cushing. Turn right on Fremont Blvd. (if you are coming from the south, turn left on Fremont), and exit right on Cushing Parkway. Pass the light at Northport Loop. On the left side, immediately after the LAM business park, there will be a blue pipe gate across a gravel road. We will meet at the gate.

**Sunday, April 25 9:30 am, East Trail at Mount Diablo SP.** Meet across from the Divide Reservoir sign on Marsh Creek Road in Clayton. This trip goes through some very nice native plant habitat on the northeast side of Mount Diablo, with an interesting live oak forest. This walk has 1600 feet elevation change uphill on the way out, and downhill on the return. The round trip is about 6 miles. Figure on returning to the parking area around 3-4 pm. Bring lunch and water. We will take 3 Springs Road, Olympia Trail, East Trail and Zippe Trail.

**Directions:** Take 24 or 680 to Ignacio Valley Road. Continue on Ignacio Valley Road into the city of Clayton, and turn right from Ignacio Valley to Clayton Road. Take Clayton Road past the first intersection with Marsh Creek Road, and in about a mile it becomes Marsh Creek Road. Continue straight on Marsh Creek Road. Go about 2 miles past Regency Drive. As you go uphill, look for the Divide Reservoir sign (not the Nob Hill Reservoir sign). Park on the right side of the road across from the Divide Reservoir sign, where there is plenty of space to park. Call Gregg Weber at 510-223-3310 if you have questions about this or the other Mt. Diablo field trips.

**Sunday, May 2, 2:00 pm, Samuel P. Taylor State Park.** Meet in the group picnic area parking lot, where the Pioneer Tree Trail starts (across the creek from the main picnic/parking area). We will walk the Pioneer Tree Trail and part of the Cross Marin Trail, identifying trees, shrubs, and flowers. We should see coast trillium, elk clover, fairy bells, *Clintonia*, anemones, mission bells, and violets among the flowers. Trees include redwoods, oaks, alders, maples, and California nutmeg. The walk is gentle, with a few hundred feet rise and drop over 1.5 miles and then 0.5 miles level. Led by David Margolies (divaricatum@gmail.com, 510-393-1858 cell). Co-sponsored by the East Bay Chapter of the CNPS.

**Directions:** go west on Sir Francis Drake Boulevard through Fairfax and the village of Lagunitas into the park. Take a left into the main picnic area a couple of miles after entering the park (there is a fee). Park and walk across the bridge to the

group picnic area. Meet at the far end of that parking lot, where the Pioneer Tree Trail starts. To get to Sir Francis Drake Boulevard take the San Anselmo/Richmond Bridge exit from 101 and go west toward San Anselmo.

## NATIVE HERE

**Helpers needed for two-day sale event with Bringing Back the Natives Garden Tour and Plant Sale Extravaganza.** Help set up on Friday, April 30. Volunteers on that day will join in celebrating Charli's 70<sup>th</sup> Birthday with cake (flourless, of course).

Help with customers and writing up sales slips is needed for May 1 and May 2. The nursery will be open from 10 until 5 both days, selling our wonderful local native plants, garden markers, botanical and gardening books, and the CD of Native Plants of the East Bay. Volunteer shifts will be from 9:30-1:30 and 1:30-5:30 to cover set up and clean up.

**If you haven't registered yet for Bringing Back the Natives Garden Tour, do so now at that website [www.BringingBackTheNatives.net](http://www.BringingBackTheNatives.net). The printed guide will be sent to you.** This year we have a full color ad in it. Thanks to Janice Bray for the photograph and to Monica Allatorre for the layout.

### Spring at the Nursery

Many plants are coming out of their winter dormancy. Others need to have old leaves groomed away. As we pull pots of *Carex*, *Scirpus*, and *Juncus* in order to groom them, the roots

also need to be trimmed. The mats they form are quite intriguing. It is clear that they do a wonderful job of stabilizing banks of ponds and streams with the network of long intertwining roots. Consider creating a spot for wetland wildlife if you have a low spot in your yard, a dripping faucet, or other source of moisture.

We have had to move some of the geographic sections within the nursery to accommodate the large number of plants we are growing from the Livermore area and Sunol. The list of plants available this spring will be posted mid-month.

### Seed walks start in May

Mark your calendars for Tuesday seed collecting walks which will start in May and go through the summer. They will start at 9 am from the nursery, but end time will vary depending on how far we travel.

Remember that when you purchase plants from Native Here Nursery you are supporting the East Bay Chapter of California Native Plant Society.

## BRINGING BACK THE NATIVES

Sixth Annual Bringing Back the Natives Garden Tour  
Sunday, May 2, 2010

Native Plant Sale Extravaganza  
Saturday and Sunday, May 1 and 2, 2010

Registration is now open for the free Bringing Back the Natives Garden Tour, which will take place Sunday, May 2, 2010, from 10 a.m. to 5 p.m. at various locations throughout Alameda and Contra Costa counties. Participants on the sixth annual, free, self-guided Bringing Back the Natives Garden Tour can choose from fifty showcase native plant gardens. More than 40 talks will be offered throughout the day. More than 5,000 people are expected to register for this annual event; early registration is suggested to ensure a place.

The delightful collection of gardens offered this year ranges from Jenny and Scott Fleming's 50-year-old collector's garden to several that are newly installed, and from five-acre lots to small front gardens in the flats. Garden styles run the gamut — from restoration gardens containing local native plants to the horticulturally available suite of natives from throughout

California, and from gardens designed and installed by owners to those designed and installed by professionals.

In the "Preview the Gardens" section at [www.BringingBackTheNatives.net](http://www.BringingBackTheNatives.net) are photographs of each garden, extensive garden descriptions, and plant lists, as well as a list of nurseries that sell natives. Landscape designers familiar with designing with natives can also be located on the website; many of these designers offer discount consultations to tour participants.

Admission to the Bringing Back the Natives Garden Tour is free. Registration prior to April 20 is required and can be completed at [www.BringingBackTheNatives.net](http://www.BringingBackTheNatives.net). While registering, a visit to the Carpools and Gardeners Match section of the website will help registrants find neighbors to share gardening skills, native plants, or tools; to plan work parties; or carpool. Contact [Kathy@KathyKramerConsulting.com](mailto:Kathy@KathyKramerConsulting.com) or call 510-236-9558 between 9 am and 9 pm. [www.bringingbackthenatives.net](http://www.bringingbackthenatives.net)

## MEMBERSHIP REPORT



Jan Lyle (l.), Patrice Anderson, Maren Hurn (r.)

### Meet Patrice Anderson

I was born in Tucson, Arizona. One of my favorite childhood activities was hiking out into the Saguaro cactus desert through the arroyos looking at the desert plants all day.

I lived in Cambridge, England before I was 10 years old, where I developed a love of buttercups and rain-rich green landscapes. My father was stationed at an English air force base in the 1950's.

My stepfather and mother moved me to Fremont, Ca. in my teens where I found green hills again! My parents returned to Tucson after an El Nino cycle in the 60's. I happily returned to Bay Area winter rains and green hills in the 70's when I earned a BA in Practice of Art at Stanford University where I enjoyed my sophomore Botany course that got me up early Saturday mornings to explore the plants of Jasper Ridge.

My first job as a lithographer, photographer and fine arts painter was—plant sales clerk and terrarium builder at Roots and Shoots Plant Shop in Menlo Park. I quickly learned how to grow tropical plants for indoor use. Plants saved my life when I was a starving graduate with a seemingly useless fine arts degree!

Next, I worked as a cashier and sales clerk at Eastside Nursery in Palo Alto where I learned about landscaping plants. After a drought, I decided to earn my MA Arch. at U.C. Berkeley. The architecture department interviewer told me I would be able to practice both landscape architecture and architecture with an MA Arch. Degree. I would like to talk to him about that now.

While searching for an architecture job in the recession of 1981, I worked as a horticultural technician—caring for over 2000 plants in the SF Embarcadero offices and beyond. When I finally found long term work, I indulged my love of growing my own plants for over 30 years.

My first purchase of plants native to California was in the 1970's at a Strybing Arboretum sale. I got my first manzanita then. When I moved to the North Bay, I got native plants annually at EBCNPS sales. Recently, I have volunteered at Native Here Nursery propagating and selling plants at the plant fairs.

I observe and question how native plants grow together. I study native plant garden design at Merritt College Landscape Horticulture Department with Glenn Keator, Martha Berthelsen, Chris Grampp, et al. I have started a small garden design practice. I am passionate about native plant gardens vibrantly alive with native wildlife: from insects to hawks.

My demonstration native plant home garden is a work of nature's art in progress for 16 years plus. I am very pleased to welcome the wildlife that has appeared in this garden: salamanders, flat native snails, Robins, Buckeye, small blue, Swallowtail, Skipper, Gulf Fritillary, Monarch and cabbage butterflies, snakes, Towhees, Bush Tits, Goldfinches, House Finches, Blue Jays, sparrows, raccoons, opossums, skunks, earthworms, beetles, native and honey bees, a variety of other insects and a hawk. There are more than 71 native plant species growing in my garden, including manzanitas and California buttercups. I enjoy growing and eating edibles, too: apples, pears, tangerines, nectarines, salad greens, native California grapes, etc.

A project I want to do is: bring Oakland teens to tour and volunteer at Native Here Nursery.

For over 20 years I have walked with friends and/or my pet dogs through the Serpentine Prairie, Redwood forest and Oak-Woodlands of nearby Redwood Park. I also enjoy biking and walking along the marshlands of Bay Farm/Alameda Islands and of Point Isabel/the Richmond Bay Trail. I am shocked at the number of exotics in these places.

I am glad to meet, learn from and work with CNPS members. Please feel free to contact me about growing native plants: patrice.a.anderson@gmail.com. I hope to see you at Native Here Nursery!

### New Members

Please join us in welcoming our new members who signed up in the January/February time frame. Helen Beeson, Jay Francis, Judith L. Mader, Michael Pagnet, Beverly Powell, Linda Schieber, Emily Serkin, Joe Zermeno



## Think Globally, Volunteer locally

Participate in local events.

**San Pablo** - April 11, 1-3 pm, Indigenous music Celebration. Be sure and visit our EB-CNPS table and meet our Member for March Nina Egert and for April Patrice Anderson. <http://www.ci.san-pablo.ca.us/sanpabloevents/> 510-215-3000

**Martinez** - John Muir Earth Day Birthday Celebration April 17th 10 - 4 <http://www.johnmuirassociation.org/> or 925-372-0687 [elainejx@att.net](mailto:elainejx@att.net)

## RESTORATION

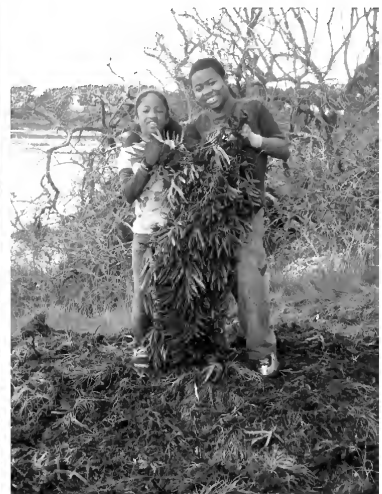
Even though rain threatened and it looked as though we'd have to cancel, we ended up having a fantastic extra work party on February 27 with a family from Richmond. Reggie and Myra, their son Myles and daughter Myleah showed us what teamwork is all about when they cleared a huge patch of ice plant by an inlet along the trail at Pt. Isabel. The family worked non-stop and took turns with two family members pulling heavy pieces of ice plant off the banks - using a technique that brought the long roots out of the ground with the main plant - while the other two piled it into wheelbarrows and brought it to the edge of the trail for pickup. The family was fascinated to see the railroad tracks that used to carry workers to the Richmond shipyards. Myles found a beautiful young California Gopher snake (which we carefully covered up again) and Myleah found a few pottery shards from the railroad dining car and those pieces will be added to the growing collection of shards we have provided to the EBRPD. The ice plant was covering *Distichlis spicata* (salt grass) by the marsh and choking a large *Rhamnus californica* (coffee berry) on the bank but the area is now free and these

plants will soon recover. Kudos to Reggie, Myra, Myles and Myleah for their tremendous effort.

At our regular work party on March 6, we welcomed 16 volunteers including four girl scouts from San Ramon. The team cleared large amounts of fennel and carefully weeded the newly planted areas along the trail. We also put in eight more *Nassella lepida* (foothill needle grass) grown by Native Here in Tilden, adding to the first three in that patch, and we added one more *Nassella pulchra* (purple needle grass) to an area that now has about 25 of these same bunch grasses. The girl scouts also planted three *Lessingia filaginifolia* (California aster) and are excited to return soon to check on their growth.

Bruce Adams from the EBRPD was on hand to make sure all went smoothly, as usual. Come out soon to see how the area has been transformed.

*Jane and Tom Kelly*



Photos of volunteers by Jane Kelly



Saturday, April 17, 2010 10 am-3 pm

## California Native Plant Sale

**Organized by the Volunteers of the Regional Parks Botanic Garden**  
The Botanic Garden is located at the intersection of Wildcat Canyon Road & South Park Drive  
near the Brazil Building in Tilden Regional Park in Berkeley.  
(Admission is free.)



4 photos by  
John Rank



center photo by TLR



© Peg Staunenberg

California shrubs, trees, perennials.  
Find many plants that are not available in a  
commercial nursery.

Horticultural advice gladly given!  
Come and explore the Garden.  
Buy some plants to take home.

Please bring boxes to carry home your treasures  
and an umbrella if it rains.

[http://ebparks.org/parks/vc/  
botanic\\_garden](http://ebparks.org/parks/vc/botanic_garden)  
510-544-3169  
<http://nativeplants.org>

Refreshments available.  
Proceeds directly benefit the Garden.

# Chapter Directory

## Officers

### **President**

Delia Barnes Taylor  
510-527-3912  
deliataylor@mac.com

### **Vice President and Chapter Council Delegate**

Bill Hunt  
wjhunt@astound.net

### **Recording Secretary**

Carol Castro  
510-352-2382  
carollbcastro@hotmail.com

### **Corresponding Secretary**

Janet Gawthrop  
janetgawthrop47@gmail.com

### **Treasurer**

David Margolies  
510-654-0283  
dm@franz.com

## Committees

### **Bayleaf Newsletter**

Bay Leaf Editor and Webmaster  
Joe Willingham, Chair  
510-841-4681  
pepe1066@comcast.net

Bay Leaf Assistant Editor  
David Margolies  
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dm@franz.com  
Bay Leaf Mailing  
Holly Forbes  
hforbes@berkeley.edu  
h 510--234-2913  
w 510-643-8040

### **Conservation**

Laura Baker, Chair  
510-849-1409  
lbake66@aol.com  
Conservation analyst  
Lech Naumovich  
conservation@ebcnps.org

### **Field Trips**

Janet Gawthrop, Chair  
janetgawthrop47@gmail.com

### **Funds Development**

Carol Castro, Chair  
Grant Management  
Sally de Becker  
510-841-6613  
sallydebecker@comcast.net

### **Information Infrastructure**

Peter Rauch, Chair  
peterar@berkeley.edu

### **Membership**

Elaine Jackson, Carol Castro  
Co-Chairs

Volunteer coordinator  
Delia Taylor  
volunteer@ebcnps.org

### **Programs**

Sue Rosenthal, Chair  
510-496-6016  
rosacalifornica@earthlink.net

### **Publicity**

(Vacant)  
**Bryophytes**  
John Game  
510-527-7855  
jcggame@stanford.edu

### **Rare Plants**

Heath Bartosh, Chair  
925-957-0069  
hbartosh@nomadecology.com

### **Unusual Plants**

Dianne Lake, Chair  
510-741-8066  
diannelake@yahoo.com

### **Vegetation**

Erin McDermott, Chair  
erinmcd2004@yahoo.com

### **EBCNPS Sponsored**

#### **Activities**

#### **Book & Poster Sales**

Joanne Orengo  
greentheglobe@juno.com

### **Grant Awards**

Sandy McCoy  
sandymccoy@mindspring.com

### **Native Here Nursery**

510-549-0211  
Manager—Charli Danielsen  
nativehere@ebcnps.org  
Sales—Margot Cunningham  
bunchgrassmarg@gmail.com  
Seed Collection—Gregg  
Weber  
510-223-3310

### **Plant Fair**

Gudrun Kleist  
510-222-2320  
gkleist@sbcglobal.net  
and Charli Danielsen  
Coordinators

### **Restoration Projects**

Leaders:  
Huckleberry—Janet  
Gawthrop

Point Isabel—Tom and Jane

Kelly  
510-704-8628 (w)  
510-684-6484 (c)  
kyotousa@sbcglobal.net  
Strawberry Creek—Tom and  
Jane Kelly

*Officers and Committee  
Chairs serve on the Board.*

*Committees are formed  
based on chapter needs and  
the interests of volunteers.  
Proposals for committees  
and projects are welcome  
and will be considered by  
the Board.*

**Botanical Workshop, Flora and Natural History of the Southern Sierra, July 11 – 17, 2010, Golden Trout Wilderness Camp, at 10,000 feet in the Southern Sierra. Instructors: Tim Thomas and Pam McKay.**

Don't miss this botany workshop that will teach us about the flora and natural history of the Golden Trout Wilderness, Cottonwood Lakes Basin and the John Muir Wilderness. Guided hikes and interpretive talks will be lead by experienced trip leaders, Tim Thomas and Pam McKay. We will study plants in the field during the day (remember to bring your hand lens) and in the evenings will be lectures, slide shows and an opportunity to key plants with dissecting scopes. Plant list will be provided.

Cost: \$495.00 (includes meals from Sunday dinner through Saturday lunch)

Registration deadline: May 15, 2010

For registration information or questions about the workshop contact:

Susan D'Alcama: sdalcamo@calacademy.org, Cell# 925-899-0719

Julie Anne Hopkins: julianne@cruzio.com, Cell # 831-566-6012

Sponsored by Golden Trout Wilderness Camp, field camp of The Thacher School

California Native Plant Society  
East Bay Chapter  
P.O. Box 5597, Elmwood Station  
Berkeley CA 94705

Nonprofit Org.  
U.S. Postage  
Paid  
Oakland, CA  
Permit No. 2018

ADDRESS SERVICE REQUESTED

Time Value  
April 2010 issue

## CALENDAR OF EVENTS

**Bringing Back the Natives**, p. 7  
Sixth Annual Bringing Back the Natives Garden Tour  
Sunday, May 2, 2010  
Native Plant Sale Extravaganza  
Saturday and Sunday, May 1 and 2, 2010

**Native Here Nursery** (see page 7)  
Native Here Nursery open every Tuesday noon-3, Friday  
9-noon, and Saturday, 10-2.  
Saturday, May 1 and Sunday, May 2, open 10 am to 5 pm.

**Field trips** (see page 6)  
Saturday, April 3, 10:00 am, Toyon Canyon at Briones Re-  
gional Park  
Saturday, April 10, 9:30 am, Burma Road, at Mount Diablo  
State Park

Saturday, April 17, 10:00 am, Warm Springs vernal pools at  
San Francisco Bay National Wildlife Refuge  
Sunday, April 25 9:30 am, East Trail at Mount Diablo SP  
Sunday, May 2, 2:00 pm, Samuel P. Taylor State Park

**Board of Directors meeting**  
Wednesday, April 21, 6:30 pm. home of Carol Castro, 890  
Estudillo Avenue, San Leandro

**Membership meeting** (see page 1)  
Wednesday, April 28, 7:30 pm, Garden Room, Orinda Public  
Library  
Redwoods and Giant Sequoias: Why Are They Not Where  
They Are Not, William J. Libby, Ph.D. speaker

For late breaking news and events, join the chapter announcement mailing list  
by visiting <http://groups.google.com/group/ebcnps> and clicking on "Join this  
group". Email traffic is low and limited to official chapter announcements.

## Membership Application and Renewal Form

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip \_\_\_\_\_ Telephone \_\_\_\_\_

Email \_\_\_\_\_

I wish to affiliate with:

East Bay Chapter (Alameda and Contra Costa Counties)

Other \_\_\_\_\_

Membership category:

Individual, \$45

Family, Library, Group or International, \$75

Plant Lover, \$100.00

Plant lover, \$100

Patron, \$300

Benefactor, \$600

Mariposa Lily, \$1500

Limited Income or student, \$25.00

Other \_\_\_\_\_

Mail application and check to: California Native Plant Society, 2707 K Street, Suite 1, Sacramento CA 95816



# A Sense of Place

Guest Author  
David Amme

Point Molate is one of the last large relatively undeveloped tracts of shoreline habitat in the East Bay where the hills come right down to the San Francisco Bay. Driving east across the Richmond-San Rafael bridge, you get the best view from a distance of the Potrero Hills and Point Molate looming north of the bridge. I was drawn to explore the grasslands there in the 1970s. I found native red fescue growing in the remnant coastal prairie, a special ecotype that I named "Molate fescue".

## "in the rain shadow of Mount Tamalpais"

Point Molate is uniquely situated in the rain shadow of Mount Tamalpais, so it gets less rain than other areas of East Bay shoreline. Geologically and botanically, the point is related to the other highlands in this part of the Bay including the islands

and China Camp. Today there are some native plants that occur only in China Camp on the west side and Point Molate on the east. The views are stunning and the sunsets are spectacular. The early summer is the best time to see the grasses. The special combination of climate and topography creates some rare plant communities. There's coastal bluff where you find the live forever, *Dudleya farinosa*, coastal prairie that contains oatgrass, red fescue, purple needlegrass, California melic, Junegrass, Diego bentgrass, and a wonderful array of forbs like narrow leaf mule's ears and pipevine. These and other terrestrial communities include coastal

scrub and oak woodland. In the subtidal zone there's one of the largest beds of eelgrass in the Bay, a critically important aquatic habitat.

It's disturbing to see how large the infestations of broom, eucalyptus and pampas grass have become, but for me the most depressing development is the proposal to build a huge casino. It makes no sense to turn a beautiful piece of shoreline property into something you'd find in Las Vegas. I find it hard to believe that Point Molate couldn't be preserved for its unique natural beauty, its abundant natural resources, and its value as open space.



EAST BAY  
CNPS



Richmond Shoreline

### Botanical Hot Spots

At the westernmost tip of Contra Costa County, the mild climate of the coast shapes the inhabitants of the Richmond Shoreline BPPA. The Golden Gate helps usher in this Pacific infusion by providing its temperature and precipitation regimes to this once common habitat type that skirted the bay. The hot spots of this BPPA are areas where Coastal Terrace Prairie is still intact and native bunchgrass such as California oatgrass (*Danthonia californica* var. *californica*) are co-dominant. Here other species commonly found in coastal environs make an appearance in the East Bay such as a diminutive member of the morning-glory family, California ponysfoot (*Dichondra donnelliana*) and the colorful and elegant stonecrop bluff lettuce (*Dudleya farinosa*). True to its name, Pacific gumplant (*Grindelia stricta* var. *platyphylla*) can also be found occupying the windswept coastal bluffs. Although no herbarium collections exist for California mistmaiden (*Romanzoffia californica*), which is more commonly found along the North Coast, there are observation records that indicate this plant species also calls the Richmond Shoreline home. Another coastal hugging species, fragrant fritillary (*Fritillaria liliacea*), was once known from this BPPA. However, it was last collected in 1900 near Point Richmond by Joseph Prince Tracy.

### Sensitive Natural Community

Coastal Terrace Prairie (1)

### Rare and Unusual Plant Species

California ponysfoot — *Dichondra donnelliana* (2)

Bluff lettuce — *Dudleya farinosa* (3)

Coast gumplant — *Grindelia stricta* var. *platyphylla* (4)

California mistmaiden — *Romanzoffia californica*

### Historic Occurrence

Fragrant fritillary — *Fritillaria liliacea* (1900) (5)

### Threats, Opportunities and Constraints

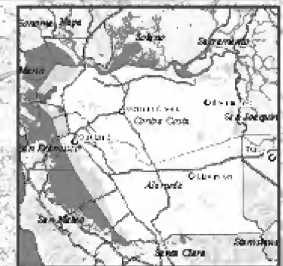
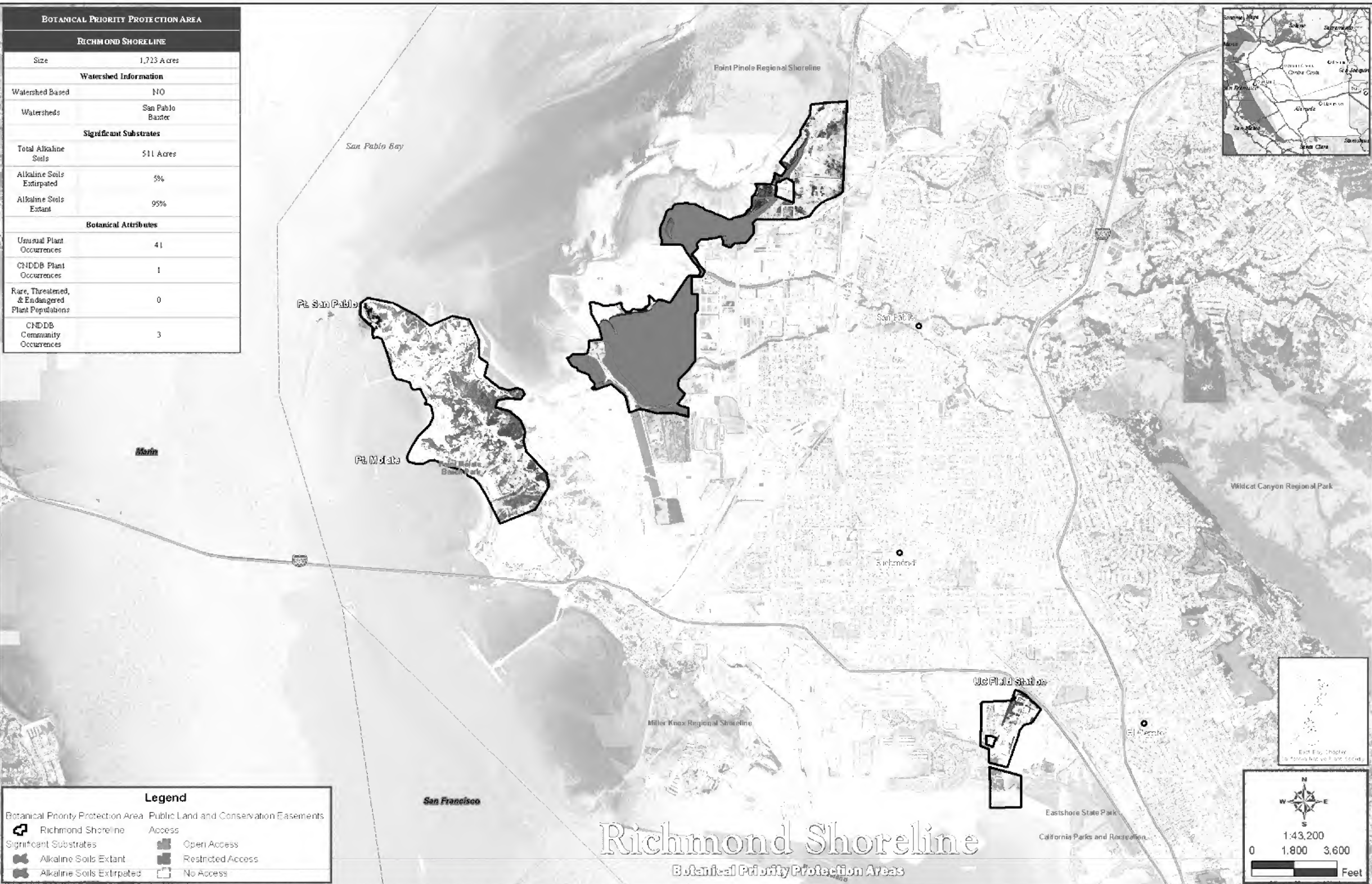
Richmond's meandering shoreline is considered the longest of any city in the East Bay. Once the industrial stronghold for the East Bay, Richmond's shoreline factories and operations have faded, leaving behind poverty and pollution. Yet, the promise of environmental justice is still unfulfilled. Much of the shoreline is polluted or scarred, often obscuring the natural value and promise of this area. Thus shoreline development presents itself as a tool to recover prosperity in Richmond, but often at the cost of gentrifying a landscape once inhabited only by factory workers and local fishermen. A strong coalition of environmental and social justice groups are working with the City of Richmond, local labor unions, the East Bay Regional Park District, and local residents to develop a strategy that will protect the important natural resources of the area, which include remnant salt marsh, coastal bluff, and coastal prairie communities, now considered rare and unusual in the East Bay and much of California. Imminent threats to the shoreline include executive housing, another port, and the destruction of coastal prairie by the Campus Bay project at the University of California Richmond Field Station. However, the most potentially destructive project is the massive casino-hotel-ferry terminal complex proposed for Point Molate on the San Pablo Peninsula which may well be tied up in litigation for years to come. An alternative vision for Point Molate and its surroundings is outlined in the San Pablo Peninsula Open Space Study that calls for parks, open space and sustainable development of the historical portions of Point Molate. Visionary restoration and preservation of these areas might well transform a tortured landscape into a source of civic pride, ensuring that this unique stretch of shoreline will endure for generations to come.



**BOTANICAL PRIORITY PROTECTION AREA**

**RICHMOND SHORELINE**

Size	1,723 Acres
<b>Watershed Information</b>	
Watershed Based	NO
Watersheds	San Pablo Bay Area
<b>Significant Substrates</b>	
Total Alkaline Soils	511 Acres
Alkaline Soils Extirpated	5%
Alkaline Soils Extant	95%
<b>Botanical Attributes</b>	
Unusual Plant Occurrences	41
CNDDP Plant Occurrences	1
Rare, Threatened, & Endangered Plant Populations	0
CNDDP Community Occurrences	3



**Legend**

Botanical Priority Protection Area	Public Land and Conservation Easements
Richmond Shoreline	Access
Significant Substrates	Open Access
Alkaline Soils Extant	Restricted Access
Alkaline Soils Extirpated	No Access

East Bay Chapter  
of the California Botanical Society

1:43,200  
0 1,800 3,600  
Feet

**Richmond Shoreline**  
Botanical Priority Protection Areas

Soil information created from the National Resource Conservation Service (NRCS) data and the State of California's Field and Mapping and Monitoring Program. Public land and easement data provided by the Bay Area Open Space Council. Water body and waterway data provided by Coastal Data Information Center; Digital Elevation data provided by the U.S. Geological Survey; and all other data provided by Esri. Projected: NAD 1983 UTM 10N zone.